


```
<150> 09/332928
<151> 1999-06-14

<150> 09/332929
<151> 1999-06-14

<150> 09/333075
<151> 1999-06-14

<150> 09/333077
<151> 1999-06-14

<150> 09/380137
<151> 1999-08-25

<150> 09/380138
<151> 1999-08-25

<150> 09/380139
<151> 1999-08-25

<150> 09/403296
<151> 1999-10-18

<150> 09/403297
<151> 1999-10-18

<150> 09/423741
<151> 1999-11-10

<150> 09/423844
<151> 1999-11-12

<150> 09/522342
<151> 2000-03-09

<150> 09/548815
<151> 2000-04-13

<150> 09/664610
<151> 2000-09-18

<150> 09/665350
<151> 2000-09-18

<150> 09/709238
<151> 2000-11-08

<150> 09/767609
<151> 2001-01-22

<150> 09/802706
<151> 2001-03-09

<150> 09/808689
<151> 2001-03-14

<150> 09/866028
```


<151> 2001-05-25

<150> 09/870574
<151> 2001-05-30

<150> 09/872035
<151> 2001-06-01

<150> 09/886342
<151> 2001-06-19

<150> PCT/US98/14552
<151> 1998-07-14

<150> PCT/US98/18824
<151> 1998-09-10

<150> PCT/US98/19093
<151> 1998-09-14

<150> PCT/US98/19330
<151> 1998-09-16

<150> PCT/US98/19437
<151> 1998-09-17

<150> PCT/US98/24855
<151> 1998-11-20

<150> PCT/US98/25108
<151> 1998-12-01

<150> PCT/US98/25190
<151> 1998-11-25

<150> PCT/US99/05028
<151> 1999-03-08

<150> PCT/US99/12252
<151> 1999-06-02

<150> PCT/US99/20111
<151> 1999-09-01

<150> PCT/US99/20594
<151> 1999-09-08

<150> PCT/US99/21090
<151> 1999-09-15

<150> PCT/US99/21547
<151> 1999-09-15

<150> PCT/US99/28301
<151> 1999-12-01

<150> PCT/US99/28313
<151> 1999-11-30

<150> PCT/US99/28565
<151> 1999-12-02

<150> PCT/US99/30999
<151> 1999-12-20

<150> PCT/US00/00219
<151> 2000-01-05

<150> PCT/US00/04341
<151> 2000-02-18

<150> PCT/US00/04342
<151> 2000-02-18

<150> PCT/US00/04414
<151> 2000-02-22

<150> PCT/US00/05601
<151> 2000-03-01

<150> PCT/US00/05841
<151> 2000-03-02

<150> PCT/US00/06471
<151> 2000-03-09

<150> PCT/US00/07377
<151> 2000-03-20

<150> PCT/US00/08439
<151> 2000-03-30

<150> PCT/US00/13358
<151> 2000-05-15

<150> PCT/US00/13705
<151> 2000-05-17

<150> PCT/US00/14042
<151> 2000-05-22

<150> PCT/US00/14941
<151> 2000-05-30

<150> PCT/US00/15264
<151> 2000-06-02

<150> PCT/US00/22031
<151> 2000-08-11

<150> PCT/US00/23328
<151> 2000-08-24

<150> PCT/US00/23522
<151> 2000-08-23

<150> PCT/US00/32678

<151> 2000-12-01

<150> PCT/US01/06520

<151> 2001-02-28

<150> PCT/US01/17443

<151> 2001-05-30

<150> PCT/US01/17800

<151> 2001-06-01

<150> PCT/US01/19692

<151> 2001-06-20

<150> PCT/US01/21066

<151> 2001-06-29

<150> PCT/US01/21735

<151> 2001-04-09

<160> 151

<210> 1

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 1

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

<210> 2

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 2

caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

<210> 3

<211> 2290

<212> DNA

<213> Homo Sapien

<400> 3

ggctgagggg aggcccgagg cctttctggg gcctggggga tctcttgca 50

ctggtgggtg gagagaagcg cctgcagcca accaggggtca ggctgtgctc 100

acagtttctc ctggcggcac gtaaaggctc cacaaaggag ttgggagttc 150

aatgaggct gctgcggacg gcctgaggat ggaccccaag cctgggacct 200

8

tttgcagaat acgccagttt ccgcctggaa cctgagagcg agtattataa 1700
getgcggctg gggcgctacc atggcaatgc gggtgactcc ttacatggc 1750
acaacggcaa gcagttcacc accctggaca gagatcatga tgtctacaca 1800
ggaaactgtg cccactacca gaagggaggc tgggtggtata acgcctgtgc 1850
ccactccaac ctcaacgggg tctggtaccg cggggggccat taccggagcc 1900
gctaccagga cggagtctac tgggctgagt tccgaggagg ctcttactca 1950
ctcaagaaag tgggtgatgat gatccgaccg aacccaaca ccttcacta 2000
agccagctcc cctcctgac ctctcgtggc cattgccagg agcccaccct 2050
ggtcacgctg gccacagcac aaagaacaac tctcaccag ttcatectga 2100
ggctgggagg accgggatgc tggattctgt tttccgaagt cactgcagcg 2150
gatgatggaa ctgaatcgat acggtgtttt ctgtccctcc tactttcctt 2200
cacaccagac agcccctcat gtctccagga caggacagga ctacagacaa 2250
ctctttcttt aaataaatta agtctctaca ataaaaaaaa 2290

<210> 4
<211> 493
<212> PRT
<213> Homo Sapien

<400> 4
Met Arg Pro Leu Cys Val Thr Cys Trp Trp Leu Gly Leu Leu Ala
1 5 10 15
Ala Met Gly Ala Val Ala Gly Gln Glu Asp Gly Phe Glu Gly Thr
20 25 30
Glu Glu Gly Ser Pro Arg Glu Phe Ile Tyr Leu Asn Arg Tyr Lys
35 40 45
Arg Ala Gly Glu Ser Gln Asp Lys Cys Thr Tyr Thr Phe Ile Val
50 55 60
Pro Gln Gln Arg Val Thr Gly Ala Ile Cys Val Asn Ser Lys Glu
65 70 75
Pro Glu Val Leu Leu Glu Asn Arg Val His Lys Gln Glu Leu Glu
80 85 90
Leu Leu Asn Asn Glu Leu Leu Lys Gln Lys Arg Gln Ile Glu Thr
95 100 105
Leu Gln Gln Leu Val Glu Val Asp Gly Gly Ile Val Ser Glu Val
110 115 120
Lys Leu Leu Arg Lys Glu Ser Arg Asn Met Asn Ser Arg Val Thr
125 130 135

Gln Leu Tyr Met	Gln Leu Leu His Glu	Ile Ile Arg Lys Arg Asp
140		150
Asn Ala Leu Glu	Leu Ser Gln Leu Glu	Asn Arg Ile Leu Asn Gln
155		165
Thr Ala Asp Met	Leu Gln Leu Ala Ser	Lys Tyr Lys Asp Leu Glu
170		180
His Lys Tyr Gln	His Leu Ala Thr Leu	Ala His Asn Gln Ser Glu
185		195
Ile Ile Ala Gln	Leu Glu Glu His Cys	Gln Arg Val Pro Ser Ala
200		210
Arg Pro Val Pro	Gln Pro Pro Pro Ala	Ala Pro Pro Arg Val Tyr
215		225
Gln Pro Pro Thr	Tyr Asn Arg Ile Ile	Asn Gln Ile Ser Thr Asn
230		240
Glu Ile Gln Ser	Asp Gln Asn Leu Lys	Val Leu Pro Pro Pro Leu
245		255
Pro Thr Met Pro	Thr Leu Thr Ser Leu	Pro Ser Ser Thr Asp Lys
260		270
Pro Ser Gly Pro	Trp Arg Asp Cys Leu	Gln Ala Leu Glu Asp Gly
275		285
His Asp Thr Ser	Ser Ile Tyr Leu Val	Lys Pro Glu Asn Thr Asn
290		300
Arg Leu Met Gln	Val Trp Cys Asp Gln	Arg His Asp Pro Gly Gly
305		315
Trp Thr Val Ile	Gln Arg Arg Leu Asp	Gly Ser Val Asn Phe Phe
320		330
Arg Asn Trp Glu	Thr Tyr Lys Gln Gly	Phe Gly Asn Ile Asp Gly
335		345
Glu Tyr Trp Leu	Gly Leu Glu Asn Ile	Tyr Trp Leu Thr Asn Gln
350		360
Gly Asn Tyr Lys	Leu Leu Val Thr Met	Glu Asp Trp Ser Gly Arg
365		375
Lys Val Phe Ala	Glu Tyr Ala Ser Phe	Arg Leu Glu Pro Glu Ser
380		390
Glu Tyr Tyr Lys	Leu Arg Leu Gly Arg	Tyr His Gly Asn Ala Gly
395		405
Asp Ser Phe Thr	Trp His Asn Gly Lys	Gln Phe Thr Thr Leu Asp
410		420
Arg Asp His Asp	Val Tyr Thr Gly Asn	Cys Ala His Tyr Gln Lys

[illegible]

```
<210> 5
<211> 33
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 5
gctgacgaac caaggcaact acaaactcct ggt 33
```

```
<210> 6
<211> 41
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 6
tgcggccgga ccagtcctcc atggtcacca ggagtttgta g 41
```

```
<210> 7
<211> 33
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 7
  ggtggtgaac tgcttgccgt tgtgccatgt aaa 33
```

```
<210> 8
<211> 1218
<212> DNA
<213> Homo Sapien
```

```
<400> 8
cccacgcgctc cggcgccgctg gcctcgcgctc catcttttgcg gttctctcgcg 50
acctgtcaca aaggagtcgc gccgcgcgcg ccgccccctc cctccggttg 100
qccccgggagq taqagaaaagt cagtgccaca gcccgaccgc gctgctctga 150
```


gatctcacgg agttctcccg atctggaagc gggaccccaa ccaagagcag 1000
 aagtgtctct ggcgtgctga acggaggcaa atccatgagc cacaatgaat 1050
 caacgtagcc agtgagggca aaagaagggc tctgtaacag aaccttacct 1100
 ccagggtgctg ttgaattctt ctagcagtc ttcacccaaa agttcaaatt 1150
 tgtcagtgac atttaccaaa caaacaggca gagttcacta ttctatctgc 1200
 cattagacct tcttatcatc cataactaaag c 1231

<210> 11
 <211> 245
 <212> PRT
 <213> Homo Sapien

<400> 11
 Met Ala Ala Ala Ile Ala Ser Ser Leu Ile Arg Gln Lys Arg Gln 15
 1 5 10
 Ala Arg Glu Arg Glu Lys Ser Asn Ala Cys Lys Cys Val Ser Ser 30
 20 25
 Pro Ser Lys Gly Lys Thr Ser Cys Asp Lys Asn Lys Leu Asn Val 45
 35 40
 Phe Ser Arg Val Lys Leu Phe Gly Ser Lys Lys Arg Arg Arg Arg 60
 50 55
 Arg Pro Glu Pro Gln Leu Lys Gly Ile Val Thr Lys Leu Tyr Ser 75
 65 70
 Arg Gln Gly Tyr His Leu Gln Leu Gln Ala Asp Gly Thr Ile Asp 90
 80 85
 Gly Thr Lys Asp Glu Asp Ser Thr Tyr Thr Leu Phe Asn Leu Ile 105
 95 100
 Pro Val Gly Leu Arg Val Val Ala Ile Gln Gly Val Gln Thr Lys 120
 110 115
 Leu Tyr Leu Ala Met Asn Ser Glu Gly Tyr Leu Tyr Thr Ser Glu 135
 125 130
 Leu Phe Thr Pro Glu Cys Lys Phe Lys Glu Ser Val Phe Glu Asn 150
 140 145
 Tyr Tyr Val Thr Tyr Ser Ser Met Ile Tyr Arg Gln Gln Gln Ser 165
 155 160
 Gly Arg Gly Trp Tyr Leu Gly Leu Asn Lys Glu Gly Glu Ile Met 180
 170 175
 Lys Gly Asn His Val Lys Lys Asn Lys Pro Ala Ala His Phe Leu 195
 185 190
 Pro Lys Pro Leu Lys Val Ala Met Tyr Lys Glu Pro Ser Leu His

200	205	210
Asp Leu Thr Glu Phe Ser Arg Ser Gly Ser Gly Thr Pro Thr Lys		
215	220	225
Ser Arg Ser Val Ser Gly Val Leu Asn Gly Gly Lys Ser Met Ser		
230	235	240
His Asn Glu Ser Thr		
245		

<210> 12
 <211> 744
 <212> DNA
 <213> Homo Sapien

<400> 12
 atggccgcgg ccacgcctag cggcttgatc cgccagaagc ggcaggcgcg 50
 ggagcagcac tgggaccggc cgtctgccag caggaggcgg agcagcccca 100
 gcaagaaccg cgggctctgc aacggcaacc tgggtggatat cttctccaaa 150
 gtgcgcctct tcggcctcaa gaagcgcagg ttgcggcgcc aagatcccca 200
 gctcaagggg atagtgacca gggttatattg caggcaaggc tactacttgc 250
 aaatgcaccc cgatggagct ctgatggaa ccaaggatga cagcactaat 300
 tctacactct tcaacctcat accagtggga ctacgtgttg ttgccatcca 350
 gggagtgaac acagggttgt atatagccat gaatggagaa gggttacctct 400
 acccatcaga actttttacc cctgaatgca agtttaaaga atctgttttt 450
 gaaaattatt atgtaatacta ctcatccatg ttgtacagac aacaggaatc 500
 tggtagagcc tgggtttttg gattaaataa ggaagggcaa gctatgaaag 550
 ggaacagagt aaagaaaacc aaaccagcag ctcattttct acccaagcca 600
 ttggaagttg ccatgtaccg agaaccatct ttgcatgatg ttggggaaac 650
 ggtcccgaag cctgggggtga cgccaagtaa aagcacaagt gcgtctgcaa 700
 taatgaatgg aggcaaacca gtcaacaaga gtaagacaac atag 744

<210> 13
 <211> 247
 <212> PRT
 <213> Homo Sapien

<400> 13
 Met Ala Ala Ala Ile Ala Ser Gly Leu Ile Arg Gln Lys Arg Gln
 1 5 10 15
 Ala Arg Glu Gln His Trp Asp Arg Pro Ser Ala Ser Arg Arg Arg
 20 25 30

caattggttt aatgctgaat tactgaagag ggctaagcaa aaccaggtgc 250
 ttgcgctgag ggctctgcag tggtctggag gaccccggcg ctctccccgt 300
 gtctcttcca cgactcgctc ggcccctctg gaataaaaca cccgcgagcc 350
 ccgagggccc agaggaggcc gacgtgcccg agctcctccg ggggtcccg 400
 ccgcgagctt tcttctcgcc ttgcctctc ctctctcgcc gtcttgga 450
 tgccaggaat aaaaaggata ctactgtta ccattctggc tctctgtctt 500
 ccaagccctg ggaatgcaca ggcacagtgc acgaatggct ttgacctgga 550
 tcgccagtca ggacagtgtt tagatattga tgaatgccga accatccccg 600
 aggcctgccg aggagacatg atgtgtgtta accaaaatgg cgggtattta 650
 tgcattcccc ggacaaacct tgtgtatcga gggccctact cgaacccta 700
 ctgcaccccc tactcaggtc cgtaccacgc agctgccccca cactctcag 750
 ctccaaacta tcccacgac tccaggcctc ttatatgccg ctttgatac 800
 cagatggatg aaagcaacca atgtgtggat gtggacgagt gtgcaacaga 850
 ttcccaccag tgcaacccca cccagatctg catcaatact gaaggcgggt 900
 acacctgctc ctgcaccgac ggatattggc ttctggaagg ccagtgtta 950
 gacattgatg aatgtcgcta tggttactgc cagcagctct gtgcgaatgt 1000
 tcctggatcc tattcttgta catgcaacct tggttttacc ctcaatgagg 1050
 atggaaggtc ttgccaagat gtgaacgagt gtgccaccga gaaccctgc 1100
 gtgcaaacct gcgtcaacac ctacggctct ctcatctgcc gctgtgacct 1150
 aggatatgaa cttgaggaag atggcgttca ttgcagtgat atggacgagt 1200
 gcagcttctc tgagttctc tgccaacatg agtgtgtgaa ccagcccggc 1250
 acatacttct gctcctgccc tccaggctac atcctgctgg atgacaaccg 1300
 aagctgccaa gacatcaacg aatgtgagca caggaaccac acgtgcaacc 1350
 tgcagcagac gtgtacaat ttacaagggg gcttcaaatg catcgacccc 1400
 atccgctgtg aggagcctta tctgaggatc agtgataacc gctgtatgtg 1450
 tcctgctgag aaccctggct gcagagacca gccctttacc atcttgta 1500
 gggacatgga cgtgggtgtca ggacgctccg ttcccgctga catcttccaa 1550
 atgcaagcca cgaccgcta ccctggggcc tattacattt tccagatcaa 1600
 atctgggaat gagggcagag aattttacat gcggcaaacg ggcccatca 1650

gtgccaccct ggtgatgaca cgccccatca aagggccccc ggaaatccag 1700
 ctggacttgg aaatgatcac tgtcaacact gtcatcaact tcagaggcag 1750
 ctccgtgate cgactgcgga tatatgtgtc gcagtaccca ttctgagcct 1800
 cgggctggag cctccgacgc tgcctctcat tggcaccaag ggacaggaga 1850
 agagaggaaa taacagagag aatgagagcg acacagacgt taggcatttc 1900
 ctgctgaacg tttccccgaa gagtcagccc cgacttcctg actctcacct 1950
 gtactattgc agacctgtca ccctgcagga cttgccaccc ccagttccta 2000
 tgacacagtt atcaaaaagt attatcattg ctcccctgat agaagattgt 2050
 tgggtgaattt tcaaggcctt cagtttattt ccactatttt caaagaaaat 2100
 agattaggtt tgcgggggtc tgagtctatg ttcaaagact gtgaacagct 2150
 tgctgtcact tcttcacctc ttcactcct tctctcactg tgttactgct 2200
 ttgcaaagac ccgggagctg gcggggaacc ctgggagtag ctagtttgct 2250
 ttttgcgta acagagaagg ctatgtaa acaaaccacagc aggatcgaag 2300
 ggtttttaga gaatgtgtt caaaaccatg cctgggtattt tcaaccataa 2350
 aagaagtttc agttgtcctt aaatttgtat aacgggttaa ttctgtcttg 2400
 ttcattttga gtatttttaa aaaatatgtc gtagaattcc ttcgaaaggc 2450
 cttcagacac atgctatggt ctgtcttccc aaaccagtc tcctctccat 2500
 tttagcccag tgttttcttt gaggaccct taatcttgct ttcttttagaa 2550
 tttttaccca attggattgg aatgcagagg tctccaaact gattaaatat 2600
 ttgaagaga 2609

<210> 15
 <211> 448
 <212> PRT
 <213> Homo Sapien

<400> 15
 Met Pro Gly Ile Lys Arg Ile Leu Thr Val Thr Ile Leu Ala Leu
 1 5 10 15
 Cys Leu Pro Ser Pro Gly Asn Ala Gln Ala Gln Cys Thr Asn Gly
 20 25 30
 Phe Asp Leu Asp Arg Gln Ser Gly Gln Cys Leu Asp Ile Asp Glu
 35 40 45
 Cys Arg Thr Ile Pro Glu Ala Cys Arg Gly Asp Met Met Cys Val
 50 55 60

Asn	Gln	Asn	Gly	Gly	Tyr	Leu	Cys	Ile	Pro	Arg	Thr	Asn	Pro	Val
				65					70					75
Tyr	Arg	Gly	Pro	Tyr	Ser	Asn	Pro	Tyr	Ser	Thr	Pro	Tyr	Ser	Gly
				80					85					90
Pro	Tyr	Pro	Ala	Ala	Ala	Pro	Pro	Leu	Ser	Ala	Pro	Asn	Tyr	Pro
				95					100					105
Thr	Ile	Ser	Arg	Pro	Leu	Ile	Cys	Arg	Phe	Gly	Tyr	Gln	Met	Asp
				110					115					120
Glu	Ser	Asn	Gln	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Asp	Ser
				125					130					135
His	Gln	Cys	Asn	Pro	Thr	Gln	Ile	Cys	Ile	Asn	Thr	Glu	Gly	Gly
				140					145					150
Tyr	Thr	Cys	Ser	Cys	Thr	Asp	Gly	Tyr	Trp	Leu	Leu	Glu	Gly	Gln
				155					160					165
Cys	Leu	Asp	Ile	Asp	Glu	Cys	Arg	Tyr	Gly	Tyr	Cys	Gln	Gln	Leu
				170					175					180
Cys	Ala	Asn	Val	Pro	Gly	Ser	Tyr	Ser	Cys	Thr	Cys	Asn	Pro	Gly
				185					190					195
Phe	Thr	Leu	Asn	Glu	Asp	Gly	Arg	Ser	Cys	Gln	Asp	Val	Asn	Glu
				200					205					210
Cys	Ala	Thr	Glu	Asn	Pro	Cys	Val	Gln	Thr	Cys	Val	Asn	Thr	Tyr
				215					220					225
Gly	Ser	Leu	Ile	Cys	Arg	Cys	Asp	Pro	Gly	Tyr	Glu	Leu	Glu	Glu
				230					235					240
Asp	Gly	Val	His	Cys	Ser	Asp	Met	Asp	Glu	Cys	Ser	Phe	Ser	Glu
				245					250					255
Phe	Leu	Cys	Gln	His	Glu	Cys	Val	Asn	Gln	Pro	Gly	Thr	Tyr	Phe
				260					265					270
Cys	Ser	Cys	Pro	Pro	Gly	Tyr	Ile	Leu	Leu	Asp	Asp	Asn	Arg	Ser
				275					280					285
Cys	Gln	Asp	Ile	Asn	Glu	Cys	Glu	His	Arg	Asn	His	Thr	Cys	Asn
				290					295					300
Leu	Gln	Gln	Thr	Cys	Tyr	Asn	Leu	Gln	Gly	Gly	Phe	Lys	Cys	Ile
				305					310					315
Asp	Pro	Ile	Arg	Cys	Glu	Glu	Pro	Tyr	Leu	Arg	Ile	Ser	Asp	Asn
				320					325					330
Arg	Cys	Met	Cys	Pro	Ala	Glu	Asn	Pro	Gly	Cys	Arg	Asp	Gln	Pro
				335					340					345
Phe	Thr	Ile	Leu	Tyr	Arg	Asp	Met	Asp	Val	Val	Ser	Gly	Arg	Ser

350	355	360
Val Pro Ala Asp	Ile Phe Gln Met Gln Ala Thr Thr Arg Tyr Pro	
365	370	375
Gly Ala Tyr Tyr	Ile Phe Gln Ile Lys Ser Gly Asn Glu Gly Arg	
380	385	390
Glu Phe Tyr Met	Arg Gln Thr Gly Pro Ile Ser Ala Thr Leu Val	
395	400	405
Met Thr Arg Pro	Ile Lys Gly Pro Arg Glu Ile Gln Leu Asp Leu	
410	415	420
Glu Met Ile Thr	Val Asn Thr Val Ile Asn Phe Arg Gly Ser Ser	
425	430	435
Val Ile Arg Leu	Arg Ile Tyr Val Ser Gln Tyr Pro Phe	
440	445	

<210> 16
 <211> 2447
 <212> DNA
 <213> Homo Sapien

<400> 16
 cagggtccaac tgcacctcgg ttctatcgat tgaattcccc ggggatacctc 50
 tagagatccc togacctcga cccacgcgctc cgaacacagg tccttggtgc 100
 tgcagagaag cagttgtttt gctggaagga gggagtgcgc gggctgcccc 150
 gggctcctcc ctgccgcctc ctctcagtgg atgggttcag gcacctgctc 200
 tggggcaggg agggcacagg cctgcacatc gaagggtgggg tgggaccagg 250
 ctgccccctg cccacgcatc caagtcctcc cttgggcgcc cgtggccctg 300
 cagactctca gggctaaggt cctctgttgc tttttggttc caccttagaa 350
 gaggtccgc ttgactaaga gtagcttgaa ggaggcacca tgcaggagct 400
 gcatctgctc tgggtgggcgc ttctcctggg cctggctcag gcctgccctg 450
 agccctgcga ctgtggggaa aagtatggct tccagatcgc cgactgtgcc 500
 taccgcgacc tagaatccgt gccgcctggc ttcccggcca atgtgactac 550
 actgagcctg tcagccaacc ggctgccagg cttgccggag ggtgccttca 600
 gggaggtgcc cctgctgcag tcgctgtggc tggcacacaa tgagatccgc 650
 acgggtggccg ccggagccct ggcctctctg agccatctca agagcctgga 700
 cctcagccac aatctcatct ctgactttgc ctggagcgac ctgcacaacc 750
 tcagtgcctt ccaattgctc aagatggaca gcaacgagct gaccttcac 800

ccccgcgacg ccttcgcgag cctccgtgct ctgcgctcgc tgcaactcaa 850
 ccacaaccgc ttgcacacat tggccgaggg caccttcacc ccgctcaccg 900
 cgctgtccca cctgcgagtc aacgagaacc ccttcgactg cacctgcggc 950
 atcgtgtggc tcaagacatg ggccctgacc acggccgtgt ccatcccgga 1000
 gcaggacaac atgccttgca cctcacccca tgtgctcaag ggtacaccgc 1050
 tgagccgect gcgcgcactg ccatgctcgg cgccctcagt gcagctcagc 1100
 taccaacca gccaggatgg tgccgagctg cggcctggtt ttgtgctggc 1150
 actgcactgt gatgtggacg ggcagccggc ccctcagctt cactggcaca 1200
 tccagatacc cagtggcatt gtggagatca ccagcccca cgtgggcact 1250
 gatgggcgtg ccctgcctgg caccctgtg gccagctccc agccgcgctt 1300
 ccaggccttt gccaatggca gcctgcttat ccccgacttt ggcaagctgg 1350
 aggaaggcac ctacagctgc ctggccacca atgagctggg cagtgtgag 1400
 agctcagtgg acgtggcact ggccacgccc ggtgaggggt gtgaggacac 1450
 actggggcgc aggttccatg gcaaagcggg tgagggaaag ggctgctata 1500
 cggttgacaa cgaggtgcag ccatcagggc cggaggacaa tgtggtcatc 1550
 atctacctca gccgtgctgg gaacctgag gctgcagtcg cagaaggggt 1600
 ccctgggcag ctgccccag gcctgctcct gctgggcaa agcctcctcc 1650
 tcttcttctt cctcacctcc ttctagcccc acccagggt tccctaactc 1700
 ctccccttgc ccctaccaat gcccttttaa gtgctgcagg ggtctggggg 1750
 tggcaactcc tgaggcctgc atgggtgact tcacattttc ctacctctcc 1800
 ttctaattct ttctagagca cctgctatcc ccaacttcta gacctgctcc 1850
 aaactagtga ctaggataga atttgatccc ctaactcact gtctgcgggtg 1900
 ctcatgtctg ctaacagcat tgctgtgct ctctctcag gggcagcatg 1950
 ctaacggggc gacgtcctaa tccaactggg agaagcctca gtggtggaat 2000
 tccaggcact gtgactgtca agctggcaag ggccaggatt gggggaatgg 2050
 agctggggct tagctgggag gtggtctgaa gcagacaggg aatgggagag 2100
 gaggatggga agtagacagt ggctggatat gctctgaggg tccctggggc 2150
 ctgctcaagc tctcctgct ccttgtgtt ttctgatgat ttgggggctt 2200
 gggagtcctt ttgtctcat ctgagactga aatgtgggga tccaggatgg 2250

22

Pro Leu Pro Cys Ser Ala Pro Ser Val Gln Leu Ser Tyr Gln Pro
 230 235 240
 Ser Gln Asp Gly Ala Glu Leu Arg Pro Gly Phe Val Leu Ala Leu
 245 250 255
 His Cys Asp Val Asp Gly Gln Pro Ala Pro Gln Leu His Trp His
 260 265 270
 Ile Gln Ile Pro Ser Gly Ile Val Glu Ile Thr Ser Pro Asn Val
 275 280 285
 Gly Thr Asp Gly Arg Ala Leu Pro Gly Thr Pro Val Ala Ser Ser
 290 295 300
 Gln Pro Arg Phe Gln Ala Phe Ala Asn Gly Ser Leu Leu Ile Pro
 305 310 315
 Asp Phe Gly Lys Leu Glu Glu Gly Thr Tyr Ser Cys Leu Ala Thr
 320 325 330
 Asn Glu Leu Gly Ser Ala Glu Ser Ser Val Asp Val Ala Leu Ala
 335 340 345
 Thr Pro Gly Glu Gly Gly Glu Asp Thr Leu Gly Arg Arg Phe His
 350 355 360
 Gly Lys Ala Val Glu Gly Lys Gly Cys Tyr Thr Val Asp Asn Glu
 365 370 375
 Val Gln Pro Ser Gly Pro Glu Asp Asn Val Val Ile Ile Tyr Leu
 380 385 390
 Ser Arg Ala Gly Asn Pro Glu Ala Ala Val Ala Glu Gly Val Pro
 395 400 405
 Gly Gln Leu Pro Pro Gly Leu Leu Leu Leu Gly Gln Ser Leu Leu
 410 415 420
 Leu Phe Phe Phe Leu Thr Ser Phe
 425

<210> 18
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 18
 gtggctggca cacaatgaga tc 22

 <210> 19
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 19
 ccaatgtgtg caagcgggtg tg 22

<210> 20
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 20
 tcaagagcct ggacctcagc cacaatctca tctctgactt tgcttgagc 50

<210> 21
 <211> 2033
 <212> DNA
 <213> Homo Sapien

<400> 21
 ccaggccggg aggcgacgcg cccagccgtc taaacgggaa cagccctggc 50
 tgagggagct gcagcgcagc agagtatctg acggcgccag gttgcgtagg 100
 tgccggcacga ggagttttcc cggcagcgag gaggtcctga gcagcatggc 150
 ccggaggagc gccttccttg ccgccgcgct ctggctctgg agcatcctcc 200
 tgtgcctgct ggcactgcgg gcggaggccg ggccgcccga ggaggagagc 250
 ctgtacctat ggatcgatgc tcaccaggca agagtactca taggatttga 300
 agaagatatc ctgattgttt cagaggggaa aatggcacct ttacacatg 350
 atttcagaaa agcgcacagc agaatgccag ctattcctgt caatatccat 400
 tccatgaatt ttacctggca agctgcaggg caggcagaat acttctatga 450
 attcctgtcc ttgcgtccc tggataaagg catcatggca gatccaaccg 500
 tcaatgtccc tctgctggga acagtgcctc acaaggcatc agttgttcaa 550
 gttggtttcc catgtcttgg aaaacaggat ggggtggcag catttgaagt 600
 ggatgtgatt gttatgaatt ctgaaggcaa caccattctc caaacacctc 650
 aaaatgctat cttcttttaa acatgtcaac aagctgagtg cccaggcggg 700
 tgccgaaatg gaggcctttg taatgaaaga cgcactctgc agtgtcctga 750
 tgggttccac ggacctcact gtgagaaagc cctttgtacc ccacgatgta 800
 tgaatggtgg actttgtgtg actcctgggt tctgcatctg cccacctgga 850
 ttctatggag tgaactgtga caaagcaaac tgetcaacca cctgctttaa 900

tggaggggacc tgtttctacc ctggaaaatg tatttgccct ccaggactag 950
 agggagagca gtgtgaaatc agcaaatgcc cacaaccctg tcgaaatgga 1000
 ggtaaatagca ttggtaaaag caaatgtaag tgttccaaag gttaccaggg 1050
 agacctctgt tcaaagcctg tctgcgagcc tggctgtggt gcacatggaa 1100
 cctgccatga acccaacaaa tgccaatgtc aagaagggtg gcatggaaga 1150
 cactgcaata aaaggtacga agccagcctc atacatgccc tgaggccagc 1200
 aggcgcccag ctcaggcagc acagccttc acttaaaaag gccgaggagc 1250
 ggcgggatcc acctgaatcc aattacatct ggtgaactcc gacatctgaa 1300
 acgtttttaag ttacaccaag ttcatagcct ttgttaacct ttcattgtgt 1350
 gaatgttcaa ataattgtca ttacacttaa gaatactggc ctgaatttta 1400
 ttagcttcat tataaatcac tgagctgata tttactcttc cttttaagtt 1450
 ttctaagtac gtctgtagca tgatgggtata gattttcttg tttcagtgtc 1500
 ttgggacaga ttttatatta tgtcaattga tcagggttaa attttcagt 1550
 tgtagtgggc agatattttc aaaattacaa tgcatttatg gtgtctgggg 1600
 gcaggggaac atcagaaagg ttaaattggg caaaaatgcg taagtcacaa 1650
 gaatttggat ggtgcagtta atgttgaagt tacagcattt cagattttat 1700
 tgtcagatat ttagatgttt gttacatttt taaaaattgc tcttaatttt 1750
 taaactctca atacaatata ttttgacctt accattatc cagagattca 1800
 gtattaaaaa aaaaaaaatt acactgtggt agtggcattt aaacaatata 1850
 atatattcta aacacaatga aatagggat ataattgtat aactttttgc 1900
 attggcttga agcaatataa tatattgtaa acaaacaca gctcttacct 1950
 aataaacatt ttatactgtt tgtatgtata aaataaagg gctgctttag 2000
 ttttttggaa aaaaaaaaaa aaaaaaaaaa aaa 2033

<210> 22
 <211> 379
 <212> PRT
 <213> Homo Sapien

<400> 22
 Met Ala Arg Arg Ser Ala Phe Pro Ala Ala Ala Leu Trp Leu Trp
 1 5 10 15
 Ser Ile Leu Leu Cys Leu Leu Ala Leu Arg Ala Glu Ala Gly Pro
 20 25 30

Pro	Gln	Glu	Glu	Ser 35	Leu	Tyr	Leu	Trp	Ile 40	Asp	Ala	His	Gln	Ala 45
Arg	Val	Leu	Ile	Gly 50	Phe	Glu	Glu	Asp	Ile 55	Leu	Ile	Val	Ser	Glu 60
Gly	Lys	Met	Ala	Pro 65	Phe	Thr	His	Asp	Phe 70	Arg	Lys	Ala	Gln	Gln 75
Arg	Met	Pro	Ala	Ile 80	Pro	Val	Asn	Ile	His 85	Ser	Met	Asn	Phe	Thr 90
Trp	Gln	Ala	Ala	Gly 95	Gln	Ala	Glu	Tyr	Phe 100	Tyr	Glu	Phe	Leu	Ser 105
Leu	Arg	Ser	Leu	Asp 110	Lys	Gly	Ile	Met	Ala 115	Asp	Pro	Thr	Val	Asn 120
Val	Pro	Leu	Leu	Gly 125	Thr	Val	Pro	His	Lys 130	Ala	Ser	Val	Val	Gln 135
Val	Gly	Phe	Pro	Cys 140	Leu	Gly	Lys	Gln	Asp 145	Gly	Val	Ala	Ala	Phe 150
Glu	Val	Asp	Val	Ile 155	Val	Met	Asn	Ser	Glu 160	Gly	Asn	Thr	Ile	Leu 165
Gln	Thr	Pro	Gln	Asn 170	Ala	Ile	Phe	Phe	Lys 175	Thr	Cys	Gln	Gln	Ala 180
Glu	Cys	Pro	Gly	Gly 185	Cys	Arg	Asn	Gly	Gly 190	Phe	Cys	Asn	Glu	Arg 195
Arg	Ile	Cys	Glu	Cys 200	Pro	Asp	Gly	Phe	His 205	Gly	Pro	His	Cys	Glu 210
Lys	Ala	Leu	Cys	Thr 215	Pro	Arg	Cys	Met	Asn 220	Gly	Gly	Leu	Cys	Val 225
Thr	Pro	Gly	Phe	Cys 230	Ile	Cys	Pro	Pro	Gly 235	Phe	Tyr	Gly	Val	Asn 240
Cys	Asp	Lys	Ala	Asn 245	Cys	Ser	Thr	Thr	Cys 250	Phe	Asn	Gly	Gly	Thr 255
Cys	Phe	Tyr	Pro	Gly 260	Lys	Cys	Ile	Cys	Pro 265	Pro	Gly	Leu	Glu	Gly 270
Glu	Gln	Cys	Glu	Ile 275	Ser	Lys	Cys	Pro	Gln 280	Pro	Cys	Arg	Asn	Gly 285
Gly	Lys	Cys	Ile	Gly 290	Lys	Ser	Lys	Cys	Lys 295	Cys	Ser	Lys	Gly	Tyr 300
Gln	Gly	Asp	Leu	Cys 305	Ser	Lys	Pro	Val	Cys 310	Glu	Pro	Gly	Cys	Gly 315
Ala	His	Gly	Thr	Cys	His	Glu	Pro	Asn	Lys	Cys	Gln	Cys	Gln	Glu

<210> 23
 <211> 783
 <212> DNA
 <213> Homo Sapien

<400> 23
 agaacctcag aaatgtgagt tatttgggaa tggtgtttg taaatgtcct 50
 tacgtaagcc aagaggaggt cttgacttgg ggtcccaggg gtaccgcaga 100
 tcccagggac tggagcagca ctagcaagct ctggaggatg agccaggagt 150
 ctggaattga ggctgagcca aagaccccag ggccgtctca gtctcataaa 200
 aggggatcag gcaggaggag tttgggagaa acctgagaag ggcctgattt 250
 gcagcatcat gatgggcctc tccttggcct ctgctgtgct cctggcctcc 300
 ctcttgagtc tccaccttgg aactgccaca cgtgggagtg acatatccaa 350
 gacctgctgc ttccaataca gccacaagcc ccttccttgg acctgggtgc 400
 gaagctatga attcaccagt aacagctgct ccagcggggc tgtgatattc 450
 actacaaaaa gaggcaagaa agtctgtacc catccaagga aaaaatgggt 500
 gcaaaaatac atttctttac tgaaaactcc gaaacaattg tgactcagct 550
 gaattttcat ccgaggacgc ttggaccccg ctcttggctc tgcagccctc 600
 tggggagcct gcggaatctt ttctgaaggc tacatggacc cgctggggag 650
 gagaggggtgt ttctcccag agttacttta ataaaggttg ttcatagagt 700
 tgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 750
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 783

<210> 24
 <211> 94
 <212> PRT
 <213> Homo Sapien

<400> 24

Met Met Gly Leu Ser Leu Ala Ser Ala Val Leu Leu Ala Ser Leu
 1 5 10 15
 Leu Ser Leu His Leu Gly Thr Ala Thr Arg Gly Ser Asp Ile Ser
 20 25 30
 Lys Thr Cys Cys Phe Gln Tyr Ser His Lys Pro Leu Pro Trp Thr
 35 40 45
 Trp Val Arg Ser Tyr Glu Phe Thr Ser Asn Ser Cys Ser Gln Arg
 50 55 60
 Ala Val Ile Phe Thr Thr Lys Arg Gly Lys Lys Val Cys Thr His
 65 70 75
 Pro Arg Lys Lys Trp Val Gln Lys Tyr Ile Ser Leu Leu Lys Thr
 80 85 90
 Pro Lys Gln Leu

<210> 25
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 25
 ggatcaggca ggaggagttt ggg 23

<210> 26
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 26
 ggatgggtac agactttctt gcc 23

<210> 27
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 27
 atgatgggcc tctccttggc ctctgctgtg ctcttggcct cctcctgag 50

<210> 28
 <211> 3552
 <212> DNA
 <213> Homo Sapien

aaatttatat cagattcttg gctgcatagt tatacgattg tgtattaagg 1500
 gtcgttttag gccacatgcg gtggctcatg cctgtaatcc cagcactttg 1550
 ataggctgag gcaggtggat tgcttgagct cgggagtttg agaccagcct 1600
 catcaacaca gtgaaactcc atctcaattt aaaaagaaaa aaagtggttt 1650
 taggatgtca ttctttgcag ttcttcatca tgagacaagt ctttttttct 1700
 gcttcttata ttgcaagctc catctctact ggtgtgtgca tttaatgaca 1750
 tctaactaca gatgccgcac agccacaatg ctttgccctta tagtttttta 1800
 actttagaac gggattatct tgttattacc tgtattttca gtttcggata 1850
 tttttgactt aatgatgaga ttatcaagac gtagccctat gctaagtcac 1900
 gagcatatgg acttacgagg gttcgactta gagttttgag ctttaagata 1950
 ggattatttg ggcttaccce caccttaatt agagaaacat ttatattgct 2000
 tactactgta ggctgtacat ctcttttccg atttttgtat aatgatgtaa 2050
 acatggaaaa actttaggaa atgcacttat taggctgttt acatgggttg 2100
 cctggataca aatcagcagt caaaaatgac taaaaatata actagtgcag 2150
 gagggagaaa tcctccctct gtgggaggca cttactgcat tccagttctc 2200
 cctcctgcgc cctgagactg gaccagggtt tgatggctgg cagcttctca 2250
 aggggcagct tgtcttactt gttaatttta gaggtatata gccatattta 2300
 ttataaaata aatatttatt tatttattta taagtagatg tttacatatg 2350
 cccaggattt tgaagagcct ggtatctttg ggaagccatg tgtctggttt 2400
 gtcgtgctgg gacagtcacg ggactgcac ttccgacttg tccacagcag 2450
 atgaggacag tgagaattaa gttagatccg agactgcgaa gagcttctct 2500
 ttcaagcgcc attacagttg aacgttagtg aatcttgagc ctcatattggg 2550
 ctcagggcag agcaggtgtt tatctgcccc ggcatctgcc atggcatcaa 2600
 gagggaagag tggacggtgc ttgggaatgg tgtgaaatgg ttgccgactc 2650
 aggcattggat gggccccctc cgcttctggt ggtctgtgaa ctgagtcctt 2700
 gggatgcctt ttagggcaga gattcctgag ctgcgtttta gggtacagat 2750
 tccctgtttg aggagcttgg cccctctgta agcatctgac tcatctcaga 2800
 gatatcaatt cttaaacact gtgacaacgg gatctaaaat ggctgacaca 2850
 tttgtccttg tgtcacgttc cattatttta tttaaaaacc tcagtaatcg 2900

ttttagcttc tttccagcaa actcttctcc acagtagccc agtcgtggta 2950
 ggataaatta cggatatagt cattctaggg gtttcagtct tttccatctc 3000
 aaggcattgt gtgttttggt ccgggactgg tttggctggg acaaagttag 3050
 aactgcctga agttcgcaca ttcagattgt tgtgtccatg gagttttagg 3100
 aggggatggc ctttcgggtc ttgcgacttc catcctctcc cacttccatc 3150
 tggcgtecca caccttgctc cctgcacttc tggatgacac aggggtgctgc 3200
 tgccctcctag tctttgcctt tgctgggctt tctgtgcagg agacttggtc 3250
 tcaaagctca gagagagcca gtccgggtccc agctcctttg tcccttcctc 3300
 agaggccttc cttgaagatg catctagact accagcctta tcagtgttta 3350
 agcttattcc tttaacataa gcttcctgac aacatgaaat tgttgggggtt 3400
 ttttggcggtt ggttgatttg tttaggtttt gctttatacc cgggccaaat 3450
 agcacataac acctggttat atatgaaata ctcatatgtt tatgaccaa 3500
 ataaatatga aacctcatrt taaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3550
 aa 3552

<210> 29
 <211> 386
 <212> PRT
 <213> Homo Sapien

<400> 29
 Met Gly Leu Trp Gly Gln Ser Val Pro Thr Ala Ser Ser Ala Arg
 1 5 10 15
 Ala Gly Arg Tyr Pro Gly Ala Arg Thr Ala Ser Gly Thr Arg Pro
 20 25 30
 Trp Leu Leu Asp Pro Lys Ile Leu Lys Phe Val Val Phe Ile Val
 35 40 45
 Ala Val Leu Leu Pro Val Arg Val Asp Ser Ala Thr Ile Pro Arg
 50 55 60
 Gln Asp Glu Val Pro Gln Gln Thr Val Ala Pro Gln Gln Gln Arg
 65 70 75
 Arg Ser Leu Lys Glu Glu Glu Cys Pro Ala Gly Ser His Arg Ser
 80 85 90
 Glu Tyr Thr Gly Ala Cys Asn Pro Cys Thr Glu Gly Val Asp Tyr
 95 100 105
 Thr Ile Ala Ser Asn Asn Leu Pro Ser Cys Leu Leu Cys Thr Val
 110 115 120


```

<220>
<223> Synthetic oligonucleotide probe

<400> 30
cataaaagtt cctgcaccat gaccagagac acagtgtgtc agtgtaaaga 50

<210> 31
<211> 963
<212> DNA
<213> Homo Sapien

<400> 31
gcggcacctg gaagatgcgc ccattggctg gtggcctgct caaggtggtg 50
ttcgtggtct tcgcctcctt gtgtgcctgg tatteggggg acctgctcgc 100
agagctcatt ccagatgcac ccctgtccag tgctgcctat agcatccgca 150
gcatcgggga gaggcctgtc ctcaaagctc cagtccccaa aaggcaaaaa 200
tgtgaccact ggactccctg cccatctgac acctatgcct acaggttact 250
cagcggaggt ggcagaagca agtacgcaa aatctgcttt gaggataacc 300
tacttatggg agaacagctg ggaaatgttg ccagaggaat aaacattgcc 350
attgtcaact atgtaactgg gaatgtgaca gcaacacgat gttttgatat 400
gtatgaaggc gataactctg gaccgatgac aaagtttatt cagagtgtctg 450
ctccaaaatc cctgctcttc atgggtgacct atgacgacgg aagcacaaga 500
ctgaataacg atgccaagaa tgccatagaa gcacttgga gtaaagaaat 550
caggaacatg aaattcaggt ctagctgggt atttattgca gcaaaaggct 600
tggaactccc ttccgaaatt cagagagaaa agatcaacca ctctgatgct 650
aagaacaaca gatattcttg ctggcctgca gagatccaga tagaaggctg 700
catacccaaa gaacgaagct gacactgcag ggtcctgagt aaatgtgttc 750
tgtataaaca aatgcagctg gaatcgctca agaatttat ttttctaaat 800
ccaacagccc atatttgatg agtatttttg gtttgttgta aaccaatgaa 850
catttgctag ttgtatcaaa tcttggtacg cagtattttt ataccagtat 900
tttatgtagt gaagatgtca attagcagga aactaaaatg aatggaaatt 950
cttaaaaaaa aaa 963

<210> 32
<211> 235
<212> PRT
<213> Homo Sapien

<400> 32

```


				50					55					60
Val	Val	Leu	Asn	Ile 65	Thr	Tyr	Glu	Ser	Gly 70	Gln	Val	Tyr	Val	Asn 75
Asp	Leu	Pro	Val	Asn 80	Ser	Gly	Val	Thr	Arg 85	Ile	Ser	Cys	Gln	Thr 90
Leu	Ile	Val	Lys	Asn 95	Glu	Asn	Leu	Glu	Asn 100	Leu	Glu	Glu	Lys	Glu 105
Tyr	Phe	Gly	Ile	Val 110	Ser	Val	Arg	Ile	Leu 115	Val	His	Glu	Trp	Pro 120
Met	Thr	Ser	Gly	Ser 125	Ser	Leu	Gln	Leu	Ile 130	Val	Ile	Gln	Glu	Glu 135
Val	Val	Glu	Ile	Asp 140	Gly	Lys	Gln	Val	Gln 145	Gln	Lys	Asp	Val	Thr 150
Glu	Ile	Asp	Ile	Leu 155	Val	Lys	Asn	Arg	Gly 160	Val	Leu	Arg	His	Ser 165
Asn	Tyr	Thr	Leu	Pro 170	Leu	Glu	Glu	Ser	Met 175	Leu	Tyr	Ser	Ile	Ser 180
Arg	Asp	Ser	Asp	Ile 185	Leu	Phe	Thr	Leu	Pro 190	Asn	Leu	Ser	Lys	Lys 195
Glu	Ser	Val	Ser	Ser 200	Leu	Gln	Thr	Thr	Ser 205	Gln	Tyr	Leu	Ile	Arg 210
Asn	Val	Glu	Thr	Thr 215	Val	Asp	Glu	Asp	Val 220	Leu	Pro	Gly	Lys	Leu 225
Pro	Glu	Thr	Pro	Leu 230	Arg	Ala	Glu	Pro	Pro 235	Ser	Ser	Tyr	Lys	Val 240
Met	Cys	Gln	Trp	Met 245	Glu	Lys	Phe	Arg	Lys 250	Asp	Leu	Cys	Arg	Phe 255
Trp	Ser	Asn	Val	Phe 260	Pro	Val	Phe	Phe	Gln 265	Phe	Leu	Asn	Ile	Met 270
Val	Val	Gly	Ile	Thr 275	Gly	Ala	Ala	Val	Val 280	Ile	Thr	Ile	Leu	Lys 285
Val	Phe	Phe	Pro	Val 290	Ser	Glu	Tyr	Lys	Gly 295	Ile	Leu	Gln	Leu	Asp 300
Lys	Val	Asp	Val	Ile 305	Pro	Val	Thr	Ala	Ile 310	Asn	Leu	Tyr	Pro	Asp 315
Gly	Pro	Glu	Lys	Arg 320	Ala	Glu	Asn	Leu	Glu 325	Asp	Lys	Thr	Cys	Ile 330
<210> 40														
<211> 2498														

<212> DNA
 <213> Homo Sapien

<400> 40
 cgtctctgcg ttccgcatgc gtcccggggc gccagggcca ctctggcctc 50
 tgccctgggg ggccctggct tgggccgtgg gcttcgtgag ctccatgggc 100
 tcggggaacc ccgcgcccgg tgggtgtttgc tggctccagc agggccagga 150
 ggccacctgc agcctggtgc tccagactga tgtcaccggg gccgagtgc 200
 gtgcctccgg caacattgac accgcctggt ccaacctcac ccaccgggg 250
 aacaagatca acctcctcgg cttcttgggc cttgtccact gccttcctcg 300
 caaagattcg tgcgacggcg tggagtgcgg cccgggcaag gcgtgccgca 350
 tgctgggggg ccgcccgcgc tgcgagtgcg cgcgcgactg ctcggggctc 400
 ccggcgcggc tgcaggtctg cggctcagac ggcgccacct accgcgacga 450
 gtgcgagctg cgcgcgcgcg gctgccgcgg ccaccgggac ctgagcgtca 500
 tgtaccgggg ccgctgccgc aagtcctgtg agcacgtggt gtgcccgcgg 550
 ccacagtcgt gcgtcgtgga ccagacgggc agcgccact gcgtggtgtg 600
 tcgagcgggc ccctgccctg tgccctccag ccccgggcag gagctttgcg 650
 gcaacaacaa cgtcacctac atctcctcgt gccacatgcg ccaggccacc 700
 tgettcctgg gccgctccat cggcgtgcgc cacgcgggca gctgcgcagg 750
 caccctgag gagccgccag gtggtgagtc tgcagaagag gaagagaact 800
 tcgtgtgagc ctgcaggaca ggctggggcc tgggtgccga ggccccccat 850
 catccctgt tattttattgc cacagcagag tctaatttat atgccacgga 900
 cactccttag agcccggtt cggaccactt ggggatccca gaacctccct 950
 gacgatatcc tggaaggact gaggaaggga ggccctgggg ccggctggtg 1000
 ggtgggatag acctgcgttc cggacactga gcgcctgatt tagggccctt 1050
 ctctaggatg cccagcccc taccctaaga cctattgccg gggaggattc 1100
 cacacttccg ctcttttggg gataaaccta ttaattattg ctactatcaa 1150
 gagggctggg cattctctgc tggtaattcc tgaagaggca tgactgcttt 1200
 tctcagcccc aagcctctag tctgggtgtg tacggagggt ctagcctggg 1250
 tgtgtacgga gggctctagc tgggtgagta cggagggtct agcctgggtg 1300
 agtacggagg gtctagcctg ggtgagtacg gagggctctag cctgggtgtg 1350

tatggaggat ctagcctggg tgagtatgga ggggtctagcc tgggtgagta 1400
 tggaggggtct agcctgggtg tgtatggagg gtctagcctg ggtgagtatg 1450
 gaggggtctag cctgggtgtg tatggagggg ctagcctggg tgagtatgga 1500
 ggggtctagcc tgggtgtgta cggaggggtct agtctgagtg cgtgtgggga 1550
 cctcagaaca ctgtgacctt agcccagcaa gccaggccct tcatgaaggc 1600
 caagaaggct gccaccattc cctgccagcc caagaactcc agcttcccca 1650
 ctgcctctgt gtgccccctt gcgtcctgtg aaggccattg agaaatgccc 1700
 agtgtgcccc ctgggaaagg gcacggcctg tgctcctgac acgggctgtg 1750
 cttggccaca gaaccacca gcgtctcccc tgctgctgtc cacgtcagtt 1800
 catgaggcaa cgtcgcgtgg tctcagacgt ggagcagcca gcggcagctc 1850
 agagcagggc actgtgtccg gcggagccaa gtccactctg ggggagctct 1900
 ggcggggacc acgggccact gctcaccacac tggccccgag ggggggtgtag 1950
 acgccaagac tcacgcatgt gtgacatccg gagtcctgga gccgggtgtc 2000
 ccagtggcac cactaggtgc ctgctgcctc cacagtgggg ttcacacca 2050
 gggctccttg gtcccccaaca acctgccccg gccaggcctg cagaccaga 2100
 ctccagccag acctgcctca cccaccaatg cagccggggc tggcgacacc 2150
 agccaggtgc tgggtcttggg ccagttctcc cacgacggct caccctcccc 2200
 tccatctgcg ttgatgctca gaatcgcta cctgtgcctg cgtgtaaacc 2250
 acagcctcag accagctatg gggagaggac aacacggagg atatccagct 2300
 tccccggtct ggggtgagga atgtggggag cttgggcata ctctccagc 2350
 ctctccagc cccaggcag tgccttacct gtggtgcccc gaaaagtgcc 2400
 cctaggttgg tgggtctaca ggagcctcag ccaggcagcc caccacccc 2450
 tggggccctg cctcaccaag gaaataaaga ctcaagccat aaaaaaaaa 2498

<210> 41
 <211> 263
 <212> PRT
 <213> Homo Sapien

<400> 41
 Met Arg Pro Gly Ala Pro Gly Pro Leu Trp Pro Leu Pro Trp Gly
 1 5 10 15
 Ala Leu Ala Trp Ala Val Gly Phe Val Ser Ser Met Gly Ser Gly
 20 25 30

40

```

<210> 43
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
    ggggtgggata gacctgcg 18

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
    aaggccaaga aggctgcc 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
    ccaggcctgc agaccag 18

<210> 46
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
    cttcctcagt ccttcagga tatc 24

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
    aagctggata tcctccgtgt tgct 24

<210> 48
<211> 27
<212> DNA

```

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

cctgaagagg catgactgct tttctca 27

<210> 49

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 49

ggggataaac ctattaatta ttgctac 27

<210> 50

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 50

aacgtcacct acatctcctc gtgccacatg cgccaggcca cctg 44

<210> 51

<211> 1690

<212> DNA

<213> Homo Sapien

<400> 51

tgcagagctt gtggaggcca tggggcgcggt cgtcgaggag ctgctctcct 50

cgctgctggg gttgtggctg ttgctgtgca gctgcggatg ccccgagggc 100

gccgagctgc gtgctccgcc agataaaaac gcgattattg gagccggaat 150

tggtggcact tcagcagcct attacctgcy gcagaaattt gggaaagatg 200

tgaagataga cctgtttgaa agagaagagg tcggggggccg cctgggtacc 250

atgatggtgc aggggcaaga atacgaggca ggagggttctg tcatccatcc 300

tttaaactctg cacatgaaac gttttgtcaa agacctgggt ctctctgctg 350

ttcaggcctc tggtggccta ctggggatat ataattggaga gactctggta 400

tttgaggaga gcaactgggt cataattaac gtgattaaat tagtttggcg 450

ctatggattt caatccctcc gtatgcacat gtgggtagag gacgtgttag 500

acaagttcat gaggatctac cgctaccagt ctcatgacta tgccttcagt 550

```

agtgtcgaaa aattacttca tgctctagga ggagatgact tccttggaat 600
gcttaatcga acacttcttg aaaccttgca aaaggccggc ttttctgaga 650
agttcctcaa tgaaatgatt gctcctgtta tgagggtcaa ttatggccaa 700
agcacggaca tcaatgcctt tgtgggggcg gtgtcactgt cctgttctga 750
ttctggcctt tgggcagtag aagggtggca taaacttggt tgctcagggc 800
ttctgcaggc atccaaaagc aatcttatat ctggctcagt aatgtacatc 850
gaggagaaaa caaagaccaa gtacacagga aatccaacaa agatgtatga 900
agtgggtctac caaattggaa ctgagactcg ttcagacttc tatgacatcg 950
tcttgggtggc cactccgttg aatcgaaaaa tgcgaatat tacttttctc 1000
aactttgatc ctccaattga ggaattccat caatattatc aacatatagt 1050
gacaacttta gttaaggggg aattgaatac atctatcttt agctctagac 1100
ccatagataa atttggcctt aatacagttt taaccactga taattcagat 1150
ttgttcatta acagtattgg gattgtgccc tctgtgagag aaaaggaaga 1200
tcttgagcca tcaacagatg gaacatatgt ttggaagatc ttttccaag 1250
aaactcttac taaagcacia attttaaagc tctttctgtc ctatgattat 1300
gctgtgaaga agccatggct tgcatactct cactataagc ccccgagaa 1350
atgccccctc atcattctcc atgatcgact ttattacctc aatggcatag 1400
agtgtgcagc aagtgccatg gagatgagtg ccattgcagc ccacaacgct 1450
gcactccttg cctatcaccg ctggaacggg cacacagaca tgattgatca 1500
ggatggctta tatgagaaac ttaaaactga actatgaagt gacacactcc 1550
tttttccctt cctagttcca aatgactatc agtggcaaaa aagaacaaaa 1600
tctgagcaga gatgattttg aaccagatat ttgccatta tcattgttta 1650
ataaaagtaa tcctgctgg tcataggaaa aaaaaaaaaa 1690

```

<210> 52
 <211> 505
 <212> PRT
 <213> Homo Sapien

<400> 52
 Met Gly Arg Val Val Ala Glu Leu Val Ser Ser Leu Leu Gly Leu
 1 10 15
 Trp Leu Leu Leu Cys Ser Cys Gly Cys Pro Glu Gly Ala Glu Leu
 20 25 30

Arg	Ala	Pro	Pro	Asp 35	Lys	Ile	Ala	Ile	Ile 40	Gly	Ala	Gly	Ile	Gly 45
Gly	Thr	Ser	Ala	Ala 50	Tyr	Tyr	Leu	Arg	Gln 55	Lys	Phe	Gly	Lys	Asp 60
Val	Lys	Ile	Asp	Leu 65	Phe	Glu	Arg	Glu	Glu 70	Val	Gly	Gly	Arg	Leu 75
Ala	Thr	Met	Met	Val 80	Gln	Gly	Gln	Glu	Tyr 85	Glu	Ala	Gly	Gly	Ser 90
Val	Ile	His	Pro	Leu 95	Asn	Leu	His	Met	Lys 100	Arg	Phe	Val	Lys	Asp 105
Leu	Gly	Leu	Ser	Ala 110	Val	Gln	Ala	Ser	Gly 115	Gly	Leu	Leu	Gly	Ile 120
Tyr	Asn	Gly	Glu	Thr 125	Leu	Val	Phe	Glu	Glu 130	Ser	Asn	Trp	Phe	Ile 135
Ile	Asn	Val	Ile	Lys 140	Leu	Val	Trp	Arg	Tyr 145	Gly	Phe	Gln	Ser	Leu 150
Arg	Met	His	Met	Trp 155	Val	Glu	Asp	Val	Leu 160	Asp	Lys	Phe	Met	Arg 165
Ile	Tyr	Arg	Tyr	Gln 170	Ser	His	Asp	Tyr	Ala 175	Phe	Ser	Ser	Val	Glu 180
Lys	Leu	Leu	His	Ala 185	Leu	Gly	Gly	Asp	Asp 190	Phe	Leu	Gly	Met	Leu 195
Asn	Arg	Thr	Leu	Leu 200	Glu	Thr	Leu	Gln	Lys 205	Ala	Gly	Phe	Ser	Glu 210
Lys	Phe	Leu	Asn	Glu 215	Met	Ile	Ala	Pro	Val 220	Met	Arg	Val	Asn	Tyr 225
Gly	Gln	Ser	Thr	Asp 230	Ile	Asn	Ala	Phe	Val 235	Gly	Ala	Val	Ser	Leu 240
Ser	Cys	Ser	Asp	Ser 245	Gly	Leu	Trp	Ala	Val 250	Glu	Gly	Gly	Asn	Lys 255
Leu	Val	Cys	Ser	Gly 260	Leu	Leu	Gln	Ala	Ser 265	Lys	Ser	Asn	Leu	Ile 270
Ser	Gly	Ser	Val	Met 275	Tyr	Ile	Glu	Glu	Lys 280	Thr	Lys	Thr	Lys	Tyr 285
Thr	Gly	Asn	Pro	Thr 290	Lys	Met	Tyr	Glu	Val 295	Val	Tyr	Gln	Ile	Gly 300
Thr	Glu	Thr	Arg	Ser 305	Asp	Phe	Tyr	Asp	Ile 310	Val	Leu	Val	Ala	Thr 315
Pro	Leu	Asn	Arg	Lys	Met	Ser	Asn	Ile	Thr	Phe	Leu	Asn	Phe	Asp

320	325	330
Pro Pro Ile Glu Glu Phe His Gln Tyr	Tyr Gln His Ile Val Thr	
335	340	345
Thr Leu Val Lys Gly Glu Leu Asn Thr	Ser Ile Phe Ser Ser Arg	
350	355	360
Pro Ile Asp Lys Phe Gly Leu Asn Thr	Val Leu Thr Thr Asp Asn	
365	370	375
Ser Asp Leu Phe Ile Asn Ser Ile Gly	Ile Val Pro Ser Val Arg	
380	385	390
Glu Lys Glu Asp Pro Glu Pro Ser Thr	Asp Gly Thr Tyr Val Trp	
395	400	405
Lys Ile Phe Ser Gln Glu Thr Leu Thr	Lys Ala Gln Ile Leu Lys	
410	415	420
Leu Phe Leu Ser Tyr Asp Tyr Ala Val	Lys Lys Pro Trp Leu Ala	
425	430	435
Tyr Pro His Tyr Lys Pro Pro Glu Lys	Cys Pro Ser Ile Ile Leu	
440	445	450
His Asp Arg Leu Tyr Tyr Leu Asn Gly	Ile Glu Cys Ala Ala Ser	
455	460	465
Ala Met Glu Met Ser Ala Ile Ala Ala	His Asn Ala Ala Leu Leu	
470	475	480
Ala Tyr His Arg Trp Asn Gly His Thr	Asp Met Ile Asp Gln Asp	
485	490	495
Gly Leu Tyr Glu Lys Leu Lys Thr Glu	Leu	
500	505	

<210> 53
 <211> 728
 <212> DNA
 <213> Homo Sapien

<400> 53
 catttccaac aagagcactg gccaaagtcag cttcttctga gagagtctct 50
 agaagacatg atgtacact cagctttggg tctctgcctc ttactcgtca 100
 cagttttcttc caaccttgcc attgcaataa aaaaggaaaa gaggcctcct 150
 cagacactct caagaggatg gggagatgac atcacttggg tacaaaactta 200
 tgaagaaggt ctcttttatg ctcaaaaaag taagaagcca ttaatggtta 250
 ttcatcacct ggaggattgt caatactctc aagcactaaa gaaagtattt 300
 gcccaaatg aagaaataca agaaatggct cagaataagt tcatcatgct 350

```

aaaccttatg catgaaacca ctgataagaa tttatcacct gatgggcaat 400
atgtgcctag aatcatgttt gtagaccctt ctttaacagt tagagctgac 450
atagctggaa gatactctaa cagattgtac acatatgagc ctcgggattt 500
accctatttg atagaaaaca tgaagaaagc attaagactt attcagtcag 550
agctataaga gatgatggaa aaaagccttc acttcaaaga agtcaaattt 600
catgaagaaa acctctggca cattgacaaa tactaaatgt gcaagtatat 650
agattttgta atattactat ttagtTTTTT taatgtgttt gcaatagtct 700
tattaaaata aatgtTTTTT aaatctga 728

```

```
<210> 54
<211> 166
<212> PRT
<213> Homo Sapien
```

[illegible]

49

Asn	Pro	Pro	Glu	Met	Arg	His	Ala	Ile	Leu	Val	Gly	Asn	His	Ser	245	250	255
Ser	Arg	Leu	Gly	Gly	Val	Ala	Arg	Tyr	Val	Cys	Gln	Glu	Gly	Phe	260	265	270
Glu	Ser	Pro	Gly	Gly	Lys	Ile	Thr	Ser	Val	Cys	Thr	Glu	Lys	Gly	275	280	285
Thr	Trp	Arg	Glu	Ser	Thr	Leu	Thr	Cys	Thr	Glu	Ile	Leu	Thr	Lys	290	295	300
Ile	Asn	Asp	Val	Ser	Leu	Phe	Asn	Asp	Thr	Cys	Val	Arg	Trp	Gln	305	310	315
Ile	Asn	Ser	Arg	Arg	Ile	Asn	Pro	Lys	Ile	Ser	Tyr	Val	Ile	Ser	320	325	330
Ile	Lys	Gly	Gln	Arg	Leu	Asp	Pro	Met	Glu	Ser	Val	Arg	Glu	Glu	335	340	345
Thr	Val	Asn	Leu	Thr	Thr	Asp	Ser	Arg	Thr	Pro	Glu	Val	Cys	Leu	350	355	360
Ala	Leu	Tyr	Pro	Gly	Thr	Asn	Tyr	Thr	Val	Asn	Ile	Ser	Thr	Ala	365	370	375
Pro	Pro	Arg	Arg	Ser	Met	Pro	Ala	Val	Ile	Gly	Phe	Gln	Thr	Ala	380	385	390
Glu	Val	Asp	Leu	Leu	Glu	Asp	Asp	Gly	Ser	Phe	Asn	Ile	Ser	Ile	395	400	405
Phe	Asn	Glu	Thr	Cys	Leu	Lys	Leu	Asn	Arg	Arg	Ser	Arg	Lys	Val	410	415	420
Gly	Ser	Glu	His	Met	Tyr	Gln	Phe	Thr	Val	Leu	Gly	Gln	Arg	Trp	425	430	435
Tyr	Leu	Ala	Asn	Phe	Ser	His	Ala	Thr	Ser	Phe	Asn	Phe	Thr	Thr	440	445	450
Arg	Glu	Gln	Val	Pro	Val	Val	Cys	Leu	Asp	Leu	Tyr	Pro	Thr	Thr	455	460	465
Asp	Tyr	Thr	Val	Asn	Val	Thr	Leu	Leu	Arg	Ser	Pro	Lys	Arg	His	470	475	480
Ser	Val	Gln	Ile	Thr	Ile	Ala	Thr	Pro	Pro	Ala	Val	Lys	Gln	Thr	485	490	495
Ile	Ser	Asn	Ile	Ser	Gly	Phe	Asn	Glu	Thr	Cys	Leu	Arg	Trp	Arg	500	505	510
Ser	Ile	Lys	Thr	Ala	Asp	Met	Glu	Glu	Met	Tyr	Leu	Phe	His	Ile	515	520	525
Trp	Gly	Gln	Arg	Trp	Tyr	Gln	Lys	Glu	Phe	Ala	Gln	Glu	Met	Thr			

530										535					540				
Phe	Asn	Ile	Ser	Ser	Ser	Ser	Arg	Asp	Pro	Glu	Val	Cys	Leu	Asp					
545										550					555				
Leu	Arg	Pro	Gly	Thr	Asn	Tyr	Asn	Val	Ser	Leu	Arg	Ala	Leu	Ser					
560										565					570				
Ser	Glu	Leu	Pro	Val	Val	Ile	Ser	Leu	Thr	Thr	Gln	Ile	Thr	Glu					
575										580					585				
Pro	Pro	Leu	Pro	Glu	Val	Glu	Phe	Phe	Thr	Val	His	Arg	Gly	Pro					
590										595					600				
Leu	Pro	Arg	Leu	Arg	Leu	Arg	Lys	Ala	Lys	Glu	Lys	Asn	Gly	Pro					
605										610					615				
Ile	Ser	Ser	Tyr	Gln	Val	Leu	Val	Leu	Pro	Leu	Ala	Leu	Gln	Ser					
620										625					630				
Thr	Phe	Ser	Cys	Asp	Ser	Glu	Gly	Ala	Ser	Ser	Phe	Phe	Ser	Asn					
635										640					645				
Ala	Ser	Asp	Ala	Asp	Gly	Tyr	Val	Ala	Ala	Glu	Leu	Leu	Ala	Lys					
650										655					660				
Asp	Val	Pro	Asp	Asp	Ala	Met	Glu	Ile	Pro	Ile	Gly	Asp	Arg	Leu					
665										670					675				
Tyr	Tyr	Gly	Glu	Tyr	Tyr	Asn	Ala	Pro	Leu	Lys	Arg	Gly	Ser	Asp					
680										685					690				
Tyr	Cys	Ile	Ile	Leu	Arg	Ile	Thr	Ser	Glu	Trp	Asn	Lys	Val	Arg					
695										700					705				
Arg	His	Ser	Cys	Ala	Val	Trp	Ala	Gln	Val	Lys	Asp	Ser	Ser	Leu					
710										715					720				
Met	Leu	Leu	Gln	Met	Ala	Gly	Val	Gly	Leu	Gly	Ser	Leu	Ala	Val					
725										730					735				
Val	Ile	Ile	Leu	Thr	Phe	Leu	Ser	Phe	Ser	Ala	Val								
740										745									

<210> 59
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 59
 ccacttgcca tgaacatgcc ac 22

<210> 60
 <211> 25
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 60

cctcttgaca gacatagcga gccac 25

<210> 61

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 61

cactcttgtc tgtgggaacc acacatcttg ccacaactgt ggc 43

<210> 62

<211> 2015

<212> DNA

<213> Homo Sapien

<400> 62

ggaaaaggta cccgcgagag acagccagca gttctgtgga gcagcgggtgg 50
 cgggctagga tgggctgtct ctgggggtctg gctctgcccc ttttcttctt 100
 ctgctgggag gttgggggtct ctgggagctc tgcaggcccc agcaccgcga 150
 gaggagacac tgcgatgaca acggacgaca cagaagtgcc cgctatgact 200
 ctagcaccgg gccacgccgc tctggaaact caaacgctga gcgctgagac 250
 ctctttctagg gcctcaaccc cagccggccc cattccagaa gcagagacca 300
 ggggagccaa gagaatttcc cctgcaagag agaccaggag tttcacaaaa 350
 acatctccca acttcatggt gctgatcgcc acctccgtgg agacatcagc 400
 cgccagtggc agccccgagg gagctggaat gaccacagtt cagaccatca 450
 caggcagtga tcccaggagaa gccatctttg acaccctttg caccgatgac 500
 agctctgaag aggcaaagac actcacaatg gacatattga cattgggtca 550
 cacctccaca gaagctaagg gcctgtcctc agagagcagt gcctcttccg 600
 acggccccca tccagtcac accccgtcac gggcctcaga gaggcgcgc 650
 tcttccgacg gcccccatcc agtcacaccc ccgtcacggg cctcagagag 700
 cagcgcctct tccgacggcc cccatccagt catcaccccg tcatgggtccc 750
 cgggatctga tgtcactctc ctgctgaag ccctgggtgac tgtcaciaaac 800
 atcgagggtta ttaattgcag catcacagaa atagaaacaa caacttccag 850

catccctggg gcctcagaca tagatctcat cccacaggaa ggggtgaagg 900
 cctcgtccac ctccgatcca ccagctctgc ctgactccac tgaagcaaaa 950
 ccacacatca ctgagggtcac agcctctgcc gagaccctgt ccacagccgg 1000
 caccacagag tcagctgcac ctcatgccac ggttggggacc ccactcccca 1050
 ctaacagcgc cacagaaaga gaagtgcag caccgggggc cagaccctc 1100
 agtggagctc tgggtcacagt tagcaggaat cccctggaag aaacctcagc 1150
 cctctctgtt gagacaccaa gttacgtcaa agtctcagga gcagctccgg 1200
 tctccataga ggctgggtca gcagtgggca aaacaacttc ctttgcctggg 1250
 agctctgctt cctcctacag cccctcgga ggcgcctca agaacttcac 1300
 cccttcagag acaccgacca tggacatcgc aaccaagggg cccttcccca 1350
 ccagcagga cctcttctc tctgtccctc cgactacaac caacagcagc 1400
 cgagggacga acagcacctt agccaagatc acaacctcag cgaagaccac 1450
 gatgaagccc caacagccac gccacgact gcccgacga ggccgaccac 1500
 agacgtgagt gcaggtgaaa atggaggttt cctcctcctg cggctgagt 1550
 tggcttcccc ggaagacctc actgaccca gagtggcaga aaggctgatg 1600
 cagcagctcc accgggaact ccacgccac gcgcctcact tccaggtctc 1650
 cttactgcgt gtcaggagag gctaacggac atcagctgca gccaggcatg 1700
 tcccgatgc caaaagaggg tgctgccct agcctgggccc cccaccgaca 1750
 gactgcagct gcgttactgt gctgagaggt acccagaagg tcccatgaa 1800
 gggcagcatg tccaagcccc taaccccaga tgtggcaaca ggaccctcgc 1850
 tcacatccac cggagtgtat gtatggggag gggcttcacc tgttcccaga 1900
 ggtgtccttg gactcacctt ggcacatgtt ctgtgtttca gtaaagagag 1950
 acctgatcac ccctctgtgt gcttccatcc tgcattaaaa ttcactcagt 2000
 gtggcccaaa aaaaa 2015

<210> 63
 <211> 482
 <212> PRT
 <213> Homo Sapien

<400> 63
 Met Gly Cys Leu Trp Gly Leu Ala Leu Pro Leu Phe Phe Phe Cys
 1 5 10 15
 Trp Glu Val Gly Val Ser Gly Ser Ser Ala Gly Pro Ser Thr Arg

	20	25	30
Arg Ala Asp Thr	Ala Met Thr Thr Asp	Asp Thr Glu Val Pro	Ala 45
	35	40	
Met Thr Leu Ala	Pro Gly His Ala Ala	Leu Glu Thr Gln Thr	Leu 60
	50	55	
Ser Ala Glu Thr	Ser Ser Arg Ala Ser	Thr Pro Ala Gly Pro	Ile 75
	65	70	
Pro Glu Ala Glu	Thr Arg Gly Ala Lys	Arg Ile Ser Pro Ala	Arg 90
	80	85	
Glu Thr Arg Ser	Phe Thr Lys Thr Ser	Pro Asn Phe Met Val	Leu 105
	95	100	
Ile Ala Thr Ser	Val Glu Thr Ser Ala	Ala Ser Gly Ser Pro	Glu 120
	110	115	
Gly Ala Gly Met	Thr Thr Val Gln Thr	Ile Thr Gly Ser Asp	Pro 135
	125	130	
Glu Glu Ala Ile	Phe Asp Thr Leu Cys	Thr Asp Asp Ser Ser	Glu 150
	140	145	
Glu Ala Lys Thr	Leu Thr Met Asp Ile	Leu Thr Leu Ala His	Thr 165
	155	160	
Ser Thr Glu Ala	Lys Gly Leu Ser Ser	Glu Ser Ser Ala Ser	Ser 180
	170	175	
Asp Gly Pro His	Pro Val Ile Thr Pro	Ser Arg Ala Ser Glu	Ser 195
	185	190	
Ser Ala Ser Ser	Asp Gly Pro His Pro	Val Ile Thr Pro Ser	Arg 210
	200	205	
Ala Ser Glu Ser	Ser Ala Ser Ser Asp	Gly Pro His Pro Val	Ile 225
	215	220	
Thr Pro Ser Trp	Ser Pro Gly Ser Asp	Val Thr Leu Leu Ala	Glu 240
	230	235	
Ala Leu Val Thr	Val Thr Asn Ile Glu	Val Ile Asn Cys Ser	Ile 255
	245	250	
Thr Glu Ile Glu	Thr Thr Thr Ser Ser	Ile Pro Gly Ala Ser	Asp 270
	260	265	
Ile Asp Leu Ile	Pro Thr Glu Gly Val	Lys Ala Ser Ser Thr	Ser 285
	275	280	
Asp Pro Pro Ala	Leu Pro Asp Ser Thr	Glu Ala Lys Pro His	Ile 300
	290	295	
Thr Glu Val Thr	Ala Ser Ala Glu Thr	Leu Ser Thr Ala Gly	Thr 315
	305	310	

Thr Glu Ser Ala Ala Pro His Ala Thr Val Gly Thr Pro Leu Pro
 320 325 330
 Thr Asn Ser Ala Thr Glu Arg Glu Val Thr Ala Pro Gly Ala Thr
 335 340 345
 Thr Leu Ser Gly Ala Leu Val Thr Val Ser Arg Asn Pro Leu Glu
 350 355 360
 Glu Thr Ser Ala Leu Ser Val Glu Thr Pro Ser Tyr Val Lys Val
 365 370 375
 Ser Gly Ala Ala Pro Val Ser Ile Glu Ala Gly Ser Ala Val Gly
 380 385 390
 Lys Thr Thr Ser Phe Ala Gly Ser Ser Ala Ser Ser Tyr Ser Pro
 395 400 405
 Ser Glu Ala Ala Leu Lys Asn Phe Thr Pro Ser Glu Thr Pro Thr
 410 415 420
 Met Asp Ile Ala Thr Lys Gly Pro Phe Pro Thr Ser Arg Asp Pro
 425 430 435
 Leu Pro Ser Val Pro Pro Thr Thr Thr Asn Ser Ser Arg Gly Thr
 440 445 450
 Asn Ser Thr Leu Ala Lys Ile Thr Thr Ser Ala Lys Thr Thr Met
 455 460 465
 Lys Pro Gln Gln Pro Arg Pro Arg Leu Pro Gly Arg Gly Arg Pro
 470 475 480
 Gln Thr

<210> 64
 <211> 1252
 <212> DNA
 <213> Homo Sapien

<400> 64
 gcctctgaat tggtgggcag tctggcagtg gagctctccc cggtctgaca 50
 gccactccag aggccatgct tcgtttcttg ccagatttgg ctttcagctt 100
 cctgttaatt ctggcttttg gccaggcagt ccaatttcaa gaatatgtct 150
 ttctccaatt tctgggctta gataaggcgc cttcacccca gaagttccaa 200
 cctgtgcctt atatcttgaa gaaaattttc caggatcgcg aggcagcagc 250
 gaccactggg gtctcccgag acttatgcta cgtaaaggag ctgggcgtcc 300
 gcgggaatgt acttcgcttt ctcccagacc aaggtttctt tctttacca 350
 aagaaaattt cccaagcttc ctctgctg cagaagctcc tctacttta 400

cctgtctgcc	atcaaagaaa	gggaacagtt	gacattggcc	cagctgggcc	450
tggacttggg	gcccaattct	tactataacc	tgggaccaga	gctggaactg	500
gctctgttcc	tggttcagga	gcctcatgtg	tggggccaga	ccaccctaa	550
gccaggtaaa	atgttttgtg	tgcggtcagt	cccatggcca	caaggtgctg	600
ttcacttcaa	cctgctggat	gtagctaagg	attggaatga	caacccccgg	650
aaaaatttcg	ggttattcct	ggagatactg	gtcaaagaag	atagagactc	700
aggggtgaat	tttcagcctg	aagacacctg	tgccagacta	agatgctccc	750
ttcatgcttc	cctgctggtg	gtgactctca	accctgatca	gtgccaccct	800
tctcggaaaa	ggagagcagc	catccctgtc	cccaagcttt	cttghtaagaa	850
cctctgccac	cgtcaccagc	tattcattaa	cttcctgggac	ctggggttggc	900
acaagtggat	cattgcccc	aaggggttca	tggcaaatta	ctgccatgga	950
gagtgtccct	tctcactgac	catctctctc	aacagctcca	attatgcttt	1000
catgcaagcc	ctgatgcatg	ccgttgacct	agagatcccc	caggctgtgt	1050
gtatccccac	caagctgtct	cccatttcca	tgctctacca	ggacaataat	1100
gacaatgtca	ttctacgaca	ttatgaagac	atggtagtcg	atgaatgtgg	1150
gtgtgggtag	gatgtcagaa	atgggaatag	aaggagtgtt	cttagggtaa	1200
atcttttaat	aaaactacct	atctggttta	tgaccactta	gatcgaaatg	1250
tc	1252				

```
<210> 65
<211> 364
<212> PRT
<213> Homo Sapien
```

```

<400> 65
Met  Leu  Arg  Phe  Leu  Pro  Asp  Leu  Ala  Phe  Ser  Phe  Leu  Leu  Ile
  1          5          10          15

Leu  Ala  Leu  Gly  Gln  Ala  Val  Gln  Phe  Gln  Glu  Tyr  Val  Phe  Leu
          20          25          30

Gln  Phe  Leu  Gly  Leu  Asp  Lys  Ala  Pro  Ser  Pro  Gln  Lys  Phe  Gln
          35          40          45

Pro  Val  Pro  Tyr  Ile  Leu  Lys  Lys  Ile  Phe  Gln  Asp  Arg  Glu  Ala
          50          55          60

Ala  Ala  Thr  Thr  Gly  Val  Ser  Arg  Asp  Leu  Cys  Tyr  Val  Lys  Glu
          65          70          75

Leu  Gly  Val  Arg  Gly  Asn  Val  Leu  Arg  Phe  Leu  Pro  Asp  Gln  Gly

```

	80	85	90
Phe Phe Leu Tyr	Pro Lys Lys Ile Ser	Gln Ala Ser Ser Cys	Leu
	95	100	105
Gln Lys Leu Leu	Tyr Phe Asn Leu Ser	Ala Ile Lys Glu Arg	Glu
	110	115	120
Gln Leu Thr Leu	Ala Gln Leu Gly Leu	Asp Leu Gly Pro Asn	Ser
	125	130	135
Tyr Tyr Asn Leu	Gly Pro Glu Leu Glu	Leu Ala Leu Phe Leu	Val
	140	145	150
Gln Glu Pro His	Val Trp Gly Gln Thr	Thr Pro Lys Pro Gly	Lys
	155	160	165
Met Phe Val Leu	Arg Ser Val Pro Trp	Pro Gln Gly Ala Val	His
	170	175	180
Phe Asn Leu Leu	Asp Val Ala Lys Asp	Trp Asn Asp Asn Pro	Arg
	185	190	195
Lys Asn Phe Gly	Leu Phe Leu Glu Ile	Leu Val Lys Glu Asp	Arg
	200	205	210
Asp Ser Gly Val	Asn Phe Gln Pro Glu	Asp Thr Cys Ala Arg	Leu
	215	220	225
Arg Cys Ser Leu	His Ala Ser Leu Leu	Val Val Thr Leu Asn	Pro
	230	235	240
Asp Gln Cys His	Pro Ser Arg Lys Arg	Arg Ala Ala Ile Pro	Val
	245	250	255
Pro Lys Leu Ser	Cys Lys Asn Leu Cys	His Arg His Gln Leu	Phe
	260	265	270
Ile Asn Phe Arg	Asp Leu Gly Trp His	Lys Trp Ile Ile Ala	Pro
	275	280	285
Lys Gly Phe Met	Ala Asn Tyr Cys His	Gly Glu Cys Pro Phe	Ser
	290	295	300
Leu Thr Ile Ser	Leu Asn Ser Ser Asn	Tyr Ala Phe Met Gln	Ala
	305	310	315
Leu Met His Ala	Val Asp Pro Glu Ile	Pro Gln Ala Val Cys	Ile
	320	325	330
Pro Thr Lys Leu	Ser Pro Ile Ser Met	Leu Tyr Gln Asp Asn	Asn
	335	340	345
Asp Asn Val Ile	Leu Arg His Tyr Glu	Asp Met Val Val Asp	Glu
	350	355	360
Cys Gly Cys Gly			

<210> 66
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 66
 gtctgacagc cactccagag 20

 <210> 67
 <211> 47
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 67
 tctccaattt ctgggcttag ataaggcgcc ttcaccccag aagttcc 47

 <210> 68
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 68
 gtcccagggt atagtaagaa ttgg 24

 <210> 69
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 69
 gtggtgcggt cagtcccatg 20

 <210> 70
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 70
 gctgtctccc atttccatgc 20

 <210> 71
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71

cgactacat gtcttcataa tgctc 24

<210> 72

<211> 2849

<212> DNA

<213> Homo Sapien

<400> 72

cactttctcc ctctcttctt ttacttttcca gaaaccgcgc ttccgcttct 50
 ggctgcagag acctcggaga ccgcgccggg gagacggagg tgctgtgggt 100
 gggggggacc tgtggctgct cgtaccgccccc cccaccctcc tcttctgcac 150
 tgccgtctct cggaagacct tttcccttgc tctgttttct tcaccgagtc 200
 tgtgcatcgc cccggacctg gccgggagga ggcttgggcg gcgggagatg 250
 ctctaggggc ggccgcgggag gagcggccgg cgggacggag ggcccggcag 300
 gaagatgggc tcccgtggac agggactctt gctggcgtag tgccgtgctc 350
 ttgcctttgc ctctggcctg gtctgagtc gtgtgccccca tgtccagggg 400
 gaacagcagg agtgggaggg gactgaggag ctgccgtcgc ctccggacca 450
 tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500
 aggggctccc tgcttcccgg tgcttgcgct gctgtgaccc cggtagctcc 550
 atgtaccggc cgaccgcgct gcccagatc aacatcacta tcttgaaagg 600
 ggagaagggg gaccgcggag atcgaggcct ccaagggaaa tatggcaaaa 650
 caggctcagc agggggccagg ggccacactg gacccaaagg gcagaagggc 700
 tccatggggg cccctgggga gcggtgcaag agccactacg ccgccttttc 750
 ggtggggcgg aagaagccca tgcacagcaa ccactactac cagacgggtg 800
 tcttcgacac ggagttcgtg aacctctacg accacttcaa catgttcacc 850
 ggcaagttct actgctacgt gcccggcctc tacttcttca gcctcaacgt 900
 gcacacctgg aaccagaagg agacctacct gcacatcatg aagaacgagg 950
 aggaggtggt gatcttggtc gcgcagggtg gcgaccgcag catcatgcaa 1000
 agccagagcc tgatgctgga gctgcgagag caggaccagg tgtgggtacg 1050
 cctctacaag ggcgaaagtg agaacgccat cttcagcgag gagctggaca 1100

cctacatcac cttcagtggc tacctgggtca agcacgccac cgagccctag 1150
ctggccggcc acctccttcc ctctcgccac cttccacccc tgcgctgtgc 1200
tgaccccacc gcctcttccc cgatccctgg actccgactc cctggctttg 1250
gcattcagtg agacgccttg cacacacaga aagccaaagc gatcgggtgct 1300
cccagatccc gcagcctctg gagagagctg acggcagatg aaatcaccag 1350
ggcggggcac ccgcgagaac cctctgggac cttccgcggc cctctctgca 1400
cacatcctca agtgaccccg cacggcgaga cgcgggtggc ggcagggcgt 1450
cccaggggtgc ggcaccgcgg ctccagtcct tggaaataat taggcaaatt 1500
ctaaaggtct caaaaggagc aaagtaaacc gtggaggaca aagaaaaggg 1550
ttgttatttt tgtctttcca gccagcctgc tggctcccaa gagagaggcc 1600
ttttcagttg agactctgct taagagaaga tccaaagtta aagctctggg 1650
gtcaggggag gggccggggg caggaaacta cctctggctt aattctttta 1700
agccacgtag gaactttctt gagggatagg tggaccctga catccctgtg 1750
gccttgccca agggctctgc tggcttttct gagtcacagc tgcgaggtga 1800
tgggggctgg ggccccaggc gtcagcctcc cagagggaca gctgagcccc 1850
ctgccttggc tccaggttgg tagaagcagc cgaagggtc ctgacagtgg 1900
ccagggaccc ctgggtcccc caggcctgca gatgtttcta tgaggggcag 1950
agctccttgg tacatccatg tgtggctctg ctccaccct gtgccacccc 2000
agagccctgg ggggtggtct ccatgcctgc caccctggca tcggctttct 2050
gtgccgcctc ccacacaaat cagccccaga agggcccggg gccttggctt 2100
ctgtttttta taaaacacct caagcagcac tgcagtctcc catctcctcg 2150
tgggctaagc atcacgctt ccacgtgtgt tgtgttggtt ggcagcaagg 2200
ctgatccaga ccccttctgc cccactgcc ctcatccagg cctctgacca 2250
gtagcctgag aggggctttt tctaggcttc agagcagggg agagctggaa 2300
ggggctagaa agtcccgct tgtctgtttc tcaggctcct gtgagcctca 2350
gtcctgagac cagagtcaag aggaagtaca cgtcccaatc acccgtgtca 2400
ggattcactc tcaggagctg ggtggcagga gaggcaatag cccctgtggc 2450
aattgcagga ccagctggag cagggttgcg gtgtctccac ggtgctctcg 2500
ccctgcccac ggccacccca gactctgac tccaggaacc ccatagcccc 2550

tctccacctc	accccatgtt	gatgccagg	gtcactcttg	ctaccgcgtg	2600
ggccccaaa	ccccgcgtgc	ctctcttctt	tccccccatc	ccccacctgg	2650
ttttgactaa	tcttgcttcc	ctctctgggc	ctggctgccg	ggatctgggg	2700
tccctaagtc	cctctcttta	aagaacttct	gcgggtcaga	ctctgaagcc	2750
gagttgctgt	gggcgtgccc	ggaagcagag	cgccacactc	gctgcttaag	2800
ctcccccaqc	tctttccaga	aaacattaaa	ctcagaattg	tgttttcaa	2849

```
<210> 73
<211> 281
<212> PRT
<213> Homo Sapien
```

<400>	73													
Met	Gly	Ser	Arg	Gly	Gln	Gly	Leu	Leu	Leu	Ala	Tyr	Cys	Leu	Leu
1				5					10					15
Leu	Ala	Phe	Ala	Ser	Gly	Leu	Val	Leu	Ser	Arg	Val	Pro	His	Val
				20					25					30
Gln	Gly	Glu	Gln	Gln	Glu	Trp	Glu	Gly	Thr	Glu	Glu	Leu	Pro	Ser
				35					40					45
Pro	Pro	Asp	His	Ala	Glu	Arg	Ala	Glu	Glu	Gln	His	Glu	Lys	Tyr
				50					55					60
Arg	Pro	Ser	Gln	Asp	Gln	Gly	Leu	Pro	Ala	Ser	Arg	Cys	Leu	Arg
				65					70					75
Cys	Cys	Asp	Pro	Gly	Thr	Ser	Met	Tyr	Pro	Ala	Thr	Ala	Val	Pro
				80					85					90
Gln	Ile	Asn	Ile	Thr	Ile	Leu	Lys	Gly	Glu	Lys	Gly	Asp	Arg	Gly
				95					100					105
Asp	Arg	Gly	Leu	Gln	Gly	Lys	Tyr	Gly	Lys	Thr	Gly	Ser	Ala	Gly
				110					115					120
Ala	Arg	Gly	His	Thr	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Ser	Met	Gly
				125					130					135
Ala	Pro	Gly	Glu	Arg	Cys	Lys	Ser	His	Tyr	Ala	Ala	Phe	Ser	Val
				140					145					150
Gly	Arg	Lys	Lys	Pro	Met	His	Ser	Asn	His	Tyr	Tyr	Gln	Thr	Val
				155					160					165
Ile	Phe	Asp	Thr	Glu	Phe	Val	Asn	Leu	Tyr	Asp	His	Phe	Asn	Met
				170					175					180
Phe	Thr	Gly	Lys	Phe	Tyr	Cys	Tyr	Val	Pro	Gly	Leu	Tyr	Phe	Phe
				185					190					195
Ser	Leu	Asn	Val	His	Thr	Trp	Asn	Gln	Lys	Glu	Thr	Tyr	Leu	His

	200		205		210
Ile Met Lys Asn Glu Glu Glu Val Val		Ile Leu Phe Ala Gln Val			
215		220		225	
Gly Asp Arg Ser Ile Met Gln Ser Gln		Ser Leu Met Leu Glu Leu			
230		235		240	
Arg Glu Gln Asp Gln Val Trp Val Arg		Leu Tyr Lys Gly Glu Arg			
245		250		255	
Glu Asn Ala Ile Phe Ser Glu Glu Leu		Asp Thr Tyr Ile Thr Phe			
260		265		270	
Ser Gly Tyr Leu Val Lys His Ala Thr		Glu Pro			
275		280			

<210> 74
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 74
 tacaggccca gtcaggacca gggg 24

<210> 75
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 75
 ctgaagaagt agaggccggg cacg 24

<210> 76
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 76
 cccggtgctt gcgctgctgt gaccccggtta cctccatgta cccgg 45

<210> 77
 <211> 1042
 <212> DNA
 <213> Homo Sapien

<400> 77
 gaattcggca cgagggaaga agagaaagaa aatctccggg gctgctggga 50

gcatataaag aagccctgtg gccttgctgg ttttaccatc cagaccagag 100
 tcaggccaca gacggacatg gctgctcaag gctgggtccat gctcctgctg 150
 gctgtcctta acctagcat ctctgtccgt ccctgtgaca ctcaagagct 200
 acgatgtctg tgtattcagg aacactctga attcattcct ctcaaactca 250
 ttaaaaaatat aatgggtgata ttcgagacca tttactgcaa cagaaaggaa 300
 gtgatagcag tcccaaaaaa tgggagtatg atttgtttgg atcctgatgc 350
 tccatgggtg aaggctactg ttggcccaat tactaacagg ttcctacctg 400
 aggacctcaa acaaaaggaa tttccaccgg caatgaagct tctgtatagt 450
 gttgagcatg aaaagcctct atatctttca tttgggagac ctgagaacaa 500
 gagaatattt ccctttccaa ttcgggagac ctctagacac tttgctgatt 550
 tagctcacia cagtgatagg aattttctac gggactccag tgaagtcagc 600
 ttgacaggca gtgatgccta aaagccactc atgaggcaaa gagtttcaag 650
 gaagctctcc tcctggagtt ttggcggttct cattcttata ctctattccc 700
 gcgttagtct ggtgatgga tctatgagct ctcttttaat attttattat 750
 aaatgtttta tttacttaac ttcctagtga atgttcacag gtgactgctc 800
 ccccatcccc atttcttgat attacatata atggcatcat atacccttt 850
 attgactgac aaactactca gattgcttaa cattttgtgc ttcaaagtct 900
 tatccactc cactatgggc tgttacagag tgcactctcg tgtagagcaa 950
 ggctccttgt cttcagtgcc ccagggtgaa atacttcttt gaaaaatttt 1000
 cattcatcag aaaatctgaa ataaaaatat gtcttaattg ag 1042

<210> 78
 <211> 167
 <212> PRT
 <213> Homo Sapien

<400> 78
 Met Ala Ala Gln Gly Trp Ser Met Leu Leu Leu Ala Val Leu Asn
 1 5 10 15
 Leu Gly Ile Phe Val Arg Pro Cys Asp Thr Gln Glu Leu Arg Cys
 20 25 30
 Leu Cys Ile Gln Glu His Ser Glu Phe Ile Pro Leu Lys Leu Ile
 35 40 45
 Lys Asn Ile Met Val Ile Phe Glu Thr Ile Tyr Cys Asn Arg Lys
 50 55 60

Glu Val Ile Ala Val Pro Lys Asn Gly Ser Met Ile Cys Leu Asp
65 70 75
Pro Asp Ala Pro Trp Val Lys Ala Thr Val Gly Pro Ile Thr Asn
80 85 90
Arg Phe Leu Pro Glu Asp Leu Lys Gln Lys Glu Phe Pro Pro Ala
95 100 105
Met Lys Leu Leu Tyr Ser Val Glu His Glu Lys Pro Leu Tyr Leu
110 115 120
Ser Phe Gly Arg Pro Glu Asn Lys Arg Ile Phe Pro Phe Pro Ile
125 130 135
Arg Glu Thr Ser Arg His Phe Ala Asp Leu Ala His Asn Ser Asp
140 145 150
Arg Asn Phe Leu Arg Asp Ser Ser Glu Val Ser Leu Thr Gly Ser
155 160 165

Asp Ala

<210> 79
<211> 798
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 794
<223> unknown base

<400> 79
cagacatggc tcagtcactg gctctgagcc tccttatacct gggtcttgccc 50
tttggcatcc ccaggaccca aggcagtgat ggaggggctc aggactgttg 100
cctcaagtac agccaaagga agattcccg ccaagggtgtc cgcagctacc 150
ggaagcagga accaagctta ggctgctcca tcccagctat cctgttcttg 200
ccccgcaagc gototcaggc agagctatgt gcagacccaa aggagctctg 250
gggtgcagcag ctgatgcagc atctggacaa gacaccatcc ccacagaaac 300
cagcccaggg ctgcaggaag gacagggggg cctccaagac tggcaagaaa 350
ggaaagggct ccaaaggctg caagaggact gagcggtcac agaccctaa 400
agggccatag ccagtgagc agcctggagc cctggagacc ccaccagcct 450
caccagcgct tgaagcctga acccaagatg caagaaggag gctatgctca 500
ggggccctgg agcagccacc ccatgctggc cttgccacac tctttctcct 550
gctttaacca ccccatctgc attccagct ctaccctgca tggctgagct 600

gccacagca ggccaggtcc agagagaccg aggagggaga gtctcccagg 650
 gagcatgaga ggaggcagca ggactgtccc cttgaaggag aatcatcagg 700
 accctggacc tgatacggct cccagtaga cccacctct tccttgtaaa 750
 tatgatattat acctaactga ataaaaagct gttctgtctt ccnccca 798

<210> 80
 <211> 134
 <212> PRT
 <213> Homo Sapien

<400> 80
 Met Ala Gln Ser Leu Ala Leu Ser Leu Leu Ile Leu Val Leu Ala
 1 5 10 15
 Phe Gly Ile Pro Arg Thr Gln Gly Ser Asp Gly Gly Ala Gln Asp
 20 25 30
 Cys Cys Leu Lys Tyr Ser Gln Arg Lys Ile Pro Ala Lys Val Val
 35 40 45
 Arg Ser Tyr Arg Lys Gln Glu Pro Ser Leu Gly Cys Ser Ile Pro
 50 55 60
 Ala Ile Leu Phe Leu Pro Arg Lys Arg Ser Gln Ala Glu Leu Cys
 65 70 75
 Ala Asp Pro Lys Glu Leu Trp Val Gln Gln Leu Met Gln His Leu
 80 85 90
 Asp Lys Thr Pro Ser Pro Gln Lys Pro Ala Gln Gly Cys Arg Lys
 95 100 105
 Asp Arg Gly Ala Ser Lys Thr Gly Lys Lys Gly Lys Gly Ser Lys
 110 115 120
 Gly Cys Lys Arg Thr Glu Arg Ser Gln Thr Pro Lys Gly Pro
 125 130

<210> 81
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 81
 agacatggct cagtcactgg 20

<210> 82
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 82
gacccctaaa gggccatag 19

<210> 83
<211> 924
<212> DNA
<213> Homo Sapien

<400> 83
aaggagcagc ccgcaagcac caagtgagag gcatgaagtt acagtgtgtt 50
tccctttggc tcttgggtac aatactgata ttgtgctcag tagacaacca 100
cggctctcagg agatgtctga tttccacaga catgcaccat atagaagaga 150
gtttccaaga aatcaaaaga gccatccaag ctaaggacac cttcccaa 200
gtcactatcc tgtccacatt ggagactctg cagatcatta agcccttaga 250
tgtgtgctgc gtgaccaaga acctcctggc gttctacgtg gacaggggtgt 300
tcaaggatca tcaggagcca aacccccaaa tcttgagaaa aatcagcagc 350
attgccaaact ctttctctta catgcagaaa actctgcggc aatgtcagga 400
acagaggcag tgtcactgca ggcaggaagc caccaatgcc accagagtca 450
tccatgacaa ctatgatcag ctggaggtcc acgctgctgc cattaaatcc 500
ctgggagagc tcgacgtctt tctagcctgg attaataaga atcatgaagt 550
aatgtttctca gcttgatgac aaggaacctg tatagtgatc cagggatgaa 600
caccctctgt gcggtttact gtgggagaca gccaccttg aaggggaagg 650
agatggggaa ggcccttgcc agctgaaagt cccactggct ggcctcaggc 700
tgtcttattc cgcttgaaaa taggcaaaaa gtctactgtg gtatttgtaa 750
taaactctat ctgctgaaag ggctgcagg ccctcctggg agtaaagggc 800
tgccttccca tctaatttat tgtaaagtca tatagtccat gtctgtgatg 850
tgagccaagt gatatcctgt agtacacatt gtactgagtg gtttttctga 900
ataaattcca tattttacct atga 924

<210> 84
<211> 177
<212> PRT
<213> Homo Sapien

<400> 84
Met Lys Leu Gln Cys Val Ser Leu Trp Leu Leu Gly Thr Ile Leu
1 5 10 15

68

tggccggcct ctggctggcc gtggccgggc gccccctcgc cttctcggac 550
 gcggggcccc acgtgcaacta cggtctggggc gaccccatcc gcctgcggca 600
 cctgtacacc tccggccccc acgggctctc cagctgcttc ctgcgcaccc 650
 gtgccgacgg cgtcgtggac tgcgcgcggg gccagagcgc gcacagtttg 700
 ctggagatca aggcagtcgc tctgcggacc gtggccatca agggcgtgca 750
 cagcgtgcgg tacctctgca tgggcgcga cggcaagatg caggggctgc 800
 ttcagtactc ggaggaagac tgtgctttcg aggaggagat ccgcccagat 850
 ggctacaatg tgtaccgatc cgagaagcac cgcctcccgg tctccctgag 900
 cagtgccaaa cagcggcagc tgtacaagaa cagaggcttt cttccactct 950
 ctcatcttct gcccatgctg cccatggtcc cagaggagcc tgaggacctc 1000
 agggggccact tggaaatctga catgttctct tcgcccctgg agaccgacag 1050
 catggaccca tttgggcttg tcaccggact ggaggccgtg aggagtccca 1100
 gctttgagaa gtaactgaga ccatgcccg gctcttcac tgctgccagg 1150
 ggctgtggta cctgcagcgt gggggacgtg cttctacaag aacagtcttg 1200
 agtccacgtt ctgttttagt ttaggaagaa acatctagaa gttgtacata 1250
 ttcagagttt tccattggca gtgccagttt ctagccaata gacttgctg 1300
 atcataacat tgtaagcctg tagcttgccc agctgctgcc tgggccccca 1350
 ttctgctccc tcgaggttgc tggacaagct gctgcactgt ctcagttctg 1400
 cttgaatacc tccatcgatg gggaaactac ttcctttgga aaaattctta 1450
 tgtcaagctg aaattctcta attttttctc atcacttccc caggagcagc 1500
 cagaagacag gcagtagttt taatttcagg aacaggatgat ccactctgta 1550
 aaacagcagg taaatttcac tcaaccccat gtgggaattg atctatatct 1600
 ctacttccag ggaccatttg cccttcccaa atccctccag gccagaactg 1650
 actggagcag gcatggccca ccaggcttca ggagtagggg aagcctggag 1700
 cccactcca gccctgggac aacttgagaa ttccccctga ggccagttct 1750
 gtcatggatg ctgtcctgag aataacttgc tgtcccggtg tcacctgctt 1800
 ccatctccca gccaccagc cctctgccca cctcacatgc ctccccatgg 1850
 attggggcct ccaggcccc ccaccttatg tcaacctgca cttcttgctt 1900
 aaaaatcagg aaaagaaaag atttgaagac cccaagtctt gtcaataact 1950

71

<212> PRT

<213> Homo Sapien

<400> 91

Met	Gly	Thr	Lys	Ala	Gln	Val	Glu	Arg	Lys	Leu	Leu	Cys	Leu	Phe	1	5	10	15
Ile	Leu	Ala	Ile	Leu	Leu	Cys	Ser	Leu	Ala	Leu	Gly	Ser	Val	Thr	20	25	30	
Val	His	Ser	Ser	Glu	Pro	Glu	Val	Arg	Ile	Pro	Glu	Asn	Asn	Pro	35	40	45	
Val	Lys	Leu	Ser	Cys	Ala	Tyr	Ser	Gly	Phe	Ser	Ser	Pro	Arg	Val	50	55	60	
Glu	Trp	Lys	Phe	Asp	Gln	Gly	Asp	Thr	Thr	Arg	Leu	Val	Cys	Tyr	65	70	75	
Asn	Asn	Lys	Ile	Thr	Ala	Ser	Tyr	Glu	Asp	Arg	Val	Thr	Phe	Leu	80	85	90	
Pro	Thr	Gly	Ile	Thr	Phe	Lys	Ser	Val	Thr	Arg	Glu	Asp	Thr	Gly	95	100	105	
Thr	Tyr	Thr	Cys	Met	Val	Ser	Glu	Glu	Gly	Gly	Asn	Ser	Tyr	Gly	110	115	120	
Glu	Val	Lys	Val	Lys	Leu	Ile	Val	Leu	Val	Pro	Pro	Ser	Lys	Pro	125	130	135	
Thr	Val	Asn	Ile	Pro	Ser	Ser	Ala	Thr	Ile	Gly	Asn	Arg	Ala	Val	140	145	150	
Leu	Thr	Cys	Ser	Glu	Gln	Asp	Gly	Ser	Pro	Pro	Ser	Glu	Tyr	Thr	155	160	165	
Trp	Phe	Lys	Asp	Gly	Ile	Val	Met	Pro	Thr	Asn	Pro	Lys	Ser	Thr	170	175	180	
Arg	Ala	Phe	Ser	Asn	Ser	Ser	Tyr	Val	Leu	Asn	Pro	Thr	Thr	Gly	185	190	195	
Glu	Leu	Val	Phe	Asp	Pro	Leu	Ser	Ala	Ser	Asp	Thr	Gly	Glu	Tyr	200	205	210	
Ser	Cys	Glu	Ala	Arg	Asn	Gly	Tyr	Gly	Thr	Pro	Met	Thr	Ser	Asn	215	220	225	
Ala	Val	Arg	Met	Glu	Ala	Val	Glu	Arg	Asn	Val	Gly	Val	Ile	Val	230	235	240	
Ala	Ala	Val	Leu	Val	Thr	Leu	Ile	Leu	Leu	Gly	Ile	Leu	Val	Phe	245	250	255	
Gly	Ile	Trp	Phe	Ala	Tyr	Ser	Arg	Gly	His	Phe	Asp	Arg	Thr	Lys	260	265	270	

Lys Gly Thr Ser Ser Lys Lys Val Ile Tyr Ser Gln Pro Ser Ala
 275 280 285

Arg Ser Glu Gly Glu Phe Lys Gln Thr Ser Ser Phe Leu Val
 290 295

<210> 92
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 92
 tcgcggagct gtgttctgtt tccc 24

<210> 93
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 93
 tgatcgcgat ggggacaaag gcgcaagctc gagaggaaac tggtgtgcct 50

<210> 94
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 94
 acacctgggtt caaagatggg 20

<210> 95
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 95
 taggaagagt tgctgaaggc acgg 24

<210> 96
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

aaggccttgc agacaaccgt ctggaggtgg ctgtcctcaa aatctgcttc 1000
 tcggatctcc ctcaagtctgc cccagacccc caaactcctc ctggctagac 1050
 tgttaggaagg gacttttgtt tgtttggttg tttcaggaaa aaagaaaggg 1100
 agagagagga aaatagaggg ttgtccactc ctcacattcc acgacccagg 1150
 cctgcacccc accccaact cccagccccg gaataaaacc attttcctgc 1200

<210> 99
 <211> 205
 <212> PRT
 <213> Homo Sapien

<400> 99
 Met Gly Ala Ala Arg Leu Leu Pro Asn Leu Thr Leu Cys Leu Gln
 1 5 10 15
 Leu Leu Ile Leu Cys Cys Gln Thr Gln Tyr Val Arg Asp Gln Gly
 20 25 30
 Ala Met Thr Asp Gln Leu Ser Arg Arg Gln Ile Arg Glu Tyr Gln
 35 40 45
 Leu Tyr Ser Arg Thr Ser Gly Lys His Val Gln Val Thr Gly Arg
 50 55 60
 Arg Ile Ser Ala Thr Ala Glu Asp Gly Asn Lys Phe Ala Lys Leu
 65 70 75
 Ile Val Glu Thr Asp Thr Phe Gly Ser Arg Val Arg Ile Lys Gly
 80 85 90
 Ala Glu Ser Glu Lys Tyr Ile Cys Met Asn Lys Arg Gly Lys Leu
 95 100 105
 Ile Gly Lys Pro Ser Gly Lys Ser Lys Asp Cys Val Phe Thr Glu
 110 115 120
 Ile Val Leu Glu Asn Asn Tyr Thr Ala Phe Gln Asn Ala Arg His
 125 130 135
 Glu Gly Trp Phe Met Ala Phe Thr Arg Gln Gly Arg Pro Arg Gln
 140 145 150
 Ala Ser Arg Ser Arg Gln Asn Gln Arg Glu Ala His Phe Ile Lys
 155 160 165
 Arg Leu Tyr Gln Gly Gln Leu Pro Phe Pro Asn His Ala Glu Lys
 170 175 180
 Gln Lys Gln Phe Glu Phe Val Gly Ser Ala Pro Thr Arg Arg Thr
 185 190 195
 Lys Arg Thr Arg Arg Pro Gln Pro Leu Thr
 200 205

ccatcctcta tgctgggaat gacaagtggg gcctggatcc tcgctgggtc 400
 cttctgagca acacccaaac gcagtacagc atcgagatcc agaactgtga 450
 tgtgtatgac gagggccctt acacctgctc ggtgcagaca gacaaccacc 500
 caaagacctc taggggtccac ctcatgtgct aagtatctcc caaaattgta 550
 gagatttctt cagatatctc cattaatgaa gggacaataa ttagcctcac 600
 ctgcatagca actggttagc cagagcctac ggttacttgg agacacatct 650
 ctcccaaagc ggttggtctt gtgagtgaag acgaatactt ggaaattcag 700
 ggcacacccc gggagcagtc aggggactac gagtgcagtg cctccaatga 750
 cgtggcgcgc cccgtggtac ggagagtaaa ggtcaccgtg aactatccac 800
 catacatttc agaagccaag ggtacaggtg tccccgtggg aaaaaggagg 850
 aactgcagtc gtgaagctc agcagctccc tcagcagaat tccagtggta 900
 caaggatgac aaaagactga ttgaaggaaa gaaaggggtg aaagtggaaa 950
 acagaccttt cctctcaaaa ctcatcttct tcaatgtctc tgaacatgac 1000
 tatgggaact acacttgctg ggcctccaac aagctggggc acaccaatgc 1050
 cagcatcatg ctatttggtc caggcgccgt cagcgaggtg agcaacggca 1100
 cgtcgaggag ggcaggctgc gtctggctgc tgctcttctt ggtcttgcat 1150
 ctgcttctca aattttgatg tgagtgccac ttccccaccc gggaaaggct 1200
 gccgccacca ccaccaccaa cacaacagca atggcaacac cgacagcaac 1250
 caatcagata tatacaaatg aaattagaag aaacacagcc tcatgggaca 1300
 gaaatttgag ggaggggaac aaagaatact ttggggggaa aagagtttta 1350
 aaaaagaaat tgaaaattgc cttgcagata tttaggatca atggagtttt 1400
 cttttcccaa acgggaagaa cacagcacac ccggcttggc cccactgcaa 1450
 gctgcatcgt gcaacctctt tgggtgccagt gtgggcaagg gctcagcctc 1500
 tctgccaca gagtgcccc acgtggaaca ttctggagct ggccatccca 1550
 aattcaatca gtccatagag acgaacagaa tgagaccttc cggcccaagc 1600
 gtggcgctgc gggcactttg gtagactgtg ccaccacggc gtgtgtgtgtg 1650
 aaactgtaaa taaaaagagc aaaaaaaaaa 1679

<210> 104
 <211> 344
 <212> PRT
 <213> Homo Sapien

$$\begin{array}{ccccccc} \frac{\partial^2 f}{\partial x_1^2} & \frac{\partial^2 f}{\partial x_1 \partial x_2} & \frac{\partial^2 f}{\partial x_1 \partial x_3} & \dots & \frac{\partial^2 f}{\partial x_1 \partial x_n} \\ \frac{\partial^2 f}{\partial x_2 \partial x_1} & \frac{\partial^2 f}{\partial x_2^2} & \frac{\partial^2 f}{\partial x_2 \partial x_3} & \dots & \frac{\partial^2 f}{\partial x_2 \partial x_n} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \frac{\partial^2 f}{\partial x_n \partial x_1} & \frac{\partial^2 f}{\partial x_n \partial x_2} & \frac{\partial^2 f}{\partial x_n \partial x_3} & \dots & \frac{\partial^2 f}{\partial x_n^2} \end{array}$$

Met	Lys	Thr	Ile	Gln	Pro	Lys	Met	His	Asn	Ser	Ile	Ser	Trp	Ala
1				5					10					15
Ile	Phe	Thr	Gly	Leu	Ala	Ala	Leu	Cys	Leu	Phe	Gln	Gly	Val	Pro
				20					25					30
Val	Arg	Ser	Gly	Asp	Ala	Thr	Phe	Pro	Lys	Ala	Met	Asp	Asn	Val
				35					40					45
Thr	Val	Arg	Gln	Gly	Glu	Ser	Ala	Thr	Leu	Arg	Cys	Thr	Ile	Asp
				50					55					60
Asn	Arg	Val	Thr	Arg	Val	Ala	Trp	Leu	Asn	Arg	Ser	Thr	Ile	Leu
				65					70					75
Tyr	Ala	Gly	Asn	Asp	Lys	Trp	Cys	Leu	Asp	Pro	Arg	Val	Val	Leu
				80					85					90
Leu	Ser	Asn	Thr	Gln	Thr	Gln	Tyr	Ser	Ile	Glu	Ile	Gln	Asn	Val
				95					100					105
Asp	Val	Tyr	Asp	Glu	Gly	Pro	Tyr	Thr	Cys	Ser	Val	Gln	Thr	Asp
				110					115					120
Asn	His	Pro	Lys	Thr	Ser	Arg	Val	His	Leu	Ile	Val	Gln	Val	Ser
				125					130					135
Pro	Lys	Ile	Val	Glu	Ile	Ser	Ser	Asp	Ile	Ser	Ile	Asn	Glu	Gly
				140					145					150
Asn	Asn	Ile	Ser	Leu	Thr	Cys	Ile	Ala	Thr	Gly	Arg	Pro	Glu	Pro
				155					160					165
Thr	Val	Thr	Trp	Arg	His	Ile	Ser	Pro	Lys	Ala	Val	Gly	Phe	Val
				170					175					180
Ser	Glu	Asp	Glu	Tyr	Leu	Glu	Ile	Gln	Gly	Ile	Thr	Arg	Glu	Gln
				185					190					195
Ser	Gly	Asp	Tyr	Glu	Cys	Ser	Ala	Ser	Asn	Asp	Val	Ala	Ala	Pro
				200					205					210
Val	Val	Arg	Arg	Val	Lys	Val	Thr	Val	Asn	Tyr	Pro	Pro	Tyr	Ile
				215					220					225
Ser	Glu	Ala	Lys	Gly	Thr	Gly	Val	Pro	Val	Gly	Gln	Lys	Gly	Thr
				230					235					240
Leu	Gln	Cys	Glu	Ala	Ser	Ala	Val	Pro	Ser	Ala	Glu	Phe	Gln	Trp
				245					250					255
Tyr	Lys	Asp	Asp	Lys	Arg	Leu	Ile	Glu	Gly	Lys	Lys	Gly	Val	Lys
				260					265					270
Val	Glu	Asn	Arg	Pro	Phe	Leu	Ser	Lys	Leu	Ile	Phe	Phe	Asn	Val
				275					280					285

Ser Glu His Asp Tyr Gly Asn Tyr Thr Cys Val Ala Ser Asn Lys
 290 295 300
 Leu Gly His Thr Asn Ala Ser Ile Met Leu Phe Gly Pro Gly Ala
 305 310 315
 Val Ser Glu Val Ser Asn Gly Thr Ser Arg Arg Ala Gly Cys Val
 320 325 330
 Trp Leu Leu Pro Leu Leu Val Leu His Leu Leu Leu Lys Phe
 335 340

<210> 105
 <211> 1734
 <212> DNA
 <213> Homo Sapien

<400> 105
 gtggactctg agaagcccag gcagttgagg acaggagaga gaaggctgca 50
 gacccagagg gagggaggac agggagtcgg aaggaggagg acagaggagg 100
 gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150
 agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200
 cctggcctgc ctctgctg cctctgcct gggcagtggg gaggctggcc 250
 ccctgcagag cggagaggaa agcactggga caaatattgg ggaggccctt 300
 ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350
 caaagaggcc ggaggggag ctggctctaa agtcagttag gcccttggcc 400
 aagggaccag agaagcagtt ggcactggag tcaggcaggt tccaggcttt 450
 ggcgcagcag atgctttggg caacagggtc ggggaagcag cccatgctct 500
 gggaaacact gggcacgaga ttggcagaca ggcagaagat gtcattcgac 550
 acggagcaga tgctgtccgc ggctcctggc agggggtgcc tggccacagt 600
 ggtgcttggg aaacttctgg aggccatggc atctttggct ctcaaggtgg 650
 ccttgagggc cagggccagg gcaatcctgg aggtctgggg actccgtggg 700
 tccacggata ccccggaac tcagcaggca gctttggaat gaatcctcag 750
 ggagctccct ggggtcaagg aggcaatgga gggccaccaa actttgggac 800
 caacactcag ggagctgtgg ccagcctgg ctatgggttca gtgagagcca 850
 gcaaccagaa tgaagggtgc acgaatcccc caccatctgg ctgaggtgga 900
 ggctccagca actctggggg aggcagcggc tcacagtcgg gcagcagtg 950
 cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

```
<210> 106
<211> 440
<212> PRT
<213> Homo Sapien
```

```

<400> 106
Met  Lys  Phe  Gln  Gly  Pro  Leu  Ala  Cys  Leu  Leu  Leu  Ala  Leu  Cys
  1          5          10          15

Leu  Gly  Ser  Gly  Glu  Ala  Gly  Pro  Leu  Gln  Ser  Gly  Glu  Glu  Ser
          20          25          30

Thr  Gly  Thr  Asn  Ile  Gly  Glu  Ala  Leu  Gly  His  Gly  Leu  Gly  Asp
          35          40          45

Ala  Leu  Ser  Glu  Gly  Val  Gly  Lys  Ala  Ile  Gly  Lys  Glu  Ala  Gly
          50          55          60

Gly  Ala  Ala  Gly  Ser  Lys  Val  Ser  Glu  Ala  Leu  Gly  Gln  Gly  Thr
          65          70          75

Arg  Glu  Ala  Val  Gly  Thr  Gly  Val  Arg  Gln  Val  Pro  Gly  Phe  Gly
          80          85          90

Ala  Ala  Asp  Ala  Leu  Gly  Asn  Arg  Val  Gly  Glu  Ala  Ala  His  Ala
          95          100          105

Leu  Gly  Asn  Thr  Gly  His  Glu  Ile  Gly  Arg  Gln  Ala  Glu  Asp  Val

```

Ile Arg His Gly	Ala Asp Ala Val Arg	Gly Ser Trp Gln Gly Val
125	130	135
Pro Gly His Ser	Gly Ala Trp Glu Thr	Ser Gly Gly His Gly Ile
140	145	150
Phe Gly Ser Gln	Gly Gly Leu Gly Gly	Gln Gly Gln Gly Asn Pro
155	160	165
Gly Gly Leu Gly	Thr Pro Trp Val His	Gly Tyr Pro Gly Asn Ser
170	175	180
Ala Gly Ser Phe	Gly Met Asn Pro Gln	Gly Ala Pro Trp Gly Gln
185	190	195
Gly Gly Asn Gly	Gly Pro Pro Asn Phe	Gly Thr Asn Thr Gln Gly
200	205	210
Ala Val Ala Gln	Pro Gly Tyr Gly Ser	Val Arg Ala Ser Asn Gln
215	220	225
Asn Glu Gly Cys	Thr Asn Pro Pro Pro	Ser Gly Ser Gly Gly Gly
230	235	240
Ser Ser Asn Ser	Gly Gly Gly Ser Gly	Ser Gln Ser Gly Ser Ser
245	250	255
Gly Ser Gly Ser	Asn Gly Asp Asn Asn	Asn Gly Ser Ser Ser Gly
260	265	270
Gly Ser Ser Ser	Gly Ser Ser Ser Gly	Ser Ser Ser Gly Gly Ser
275	280	285
Ser Gly Gly Ser	Ser Gly Gly Ser Ser	Gly Asn Ser Gly Gly Ser
290	295	300
Arg Gly Asp Ser	Gly Ser Glu Ser Ser	Trp Gly Ser Ser Thr Gly
305	310	315
Ser Ser Ser Gly	Asn His Gly Gly Ser	Gly Gly Gly Asn Gly His
320	325	330
Lys Pro Gly Cys	Glu Lys Pro Gly Asn	Glu Ala Arg Gly Ser Gly
335	340	345
Glu Ser Gly Ile	Gln Gly Phe Arg Gly	Gln Gly Val Ser Ser Asn
350	355	360
Met Arg Glu Ile	Ser Lys Glu Gly Asn	Arg Leu Leu Gly Gly Ser
365	370	375
Gly Asp Asn Tyr	Arg Gly Gln Gly Ser	Ser Trp Gly Ser Gly Gly
380	385	390
Gly Asp Ala Val	Gly Gly Val Asn Thr	Val Asn Ser Glu Thr Ser
395	400	405

Pro Gly Met Phe Asn Phe Asp Thr Phe Trp Lys Asn Phe Lys Ser
 410 415 420

Lys Leu Gly Phe Ile Asn Trp Asp Ala Ile Asn Lys Asp Gln Arg
 425 430 435

Ser Ser Arg Ile Pro
 440

<210> 107
 <211> 918
 <212> DNA
 <213> Homo Sapien

<400> 107
 agccaggcag cacatcacag cgggaggagc tgtcccaggt ggcccagctc 50
 agcaatggca atgggggtcc ccagagtcac tctgctctgc ctctttgggg 100
 ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
 cacacctact ttggccctt tgacctcagg gccatgaagc tgcccagcat 200
 ctctgtctct catgagtgtc ttgaggctat cctgtctctg gacaccgggt 250
 atcgcgcgcc ggtgacctg gtgcggaagg gctgctggac cgggcctcct 300
 gcggggccaga cgcaatcgaa cccggacgcg ctgccgccag actactcggt 350
 ggtgcgcggc tgcacaactg acaaatgcaa cgcccacctc atgactcatg 400
 acgcccctcc caacctgagc caagcacccg acccgccgac gctcagcggc 450
 gccgagtgtc acgctgtat cgggggccac caggatgact gcgctatcgg 500
 cagggtccga cgagtccagt gtcaccagga ccagaccgcc tgcttccagg 550
 gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600
 acctgccacc ggccctcctg caccaccgag ggcaccacca gcccctggac 650
 agccatcgac ctccagggct cctgctgtga ggggtacctc tgcaacagga 700
 aatccatgac ccagcccttc accagtgtt cagccaccac ccctccccga 750
 gcactacagg tcctggccct gtcctccca gtcctcctgc tgggtggggct 800
 ctcagcatag accgcccctc caggatgtg gggacagggc tcacacacct 850
 cattcttgtc gcttcagccc ctatcacata gctcactgga aaatgatgtt 900
 aaagtaagaa ttgcaaaa 918

<210> 108
 <211> 251
 <212> PRT
 <213> Homo Sapien

ggagcgcgcc tgggtgtcag cggtctcggt cccgcgcacg ctccggccgt 50
 cgcgcagcct cggcacctgc aggtccgtgc gtcccgcggc tggcgcacct 100
 gactccgtcc cgccagggga gggccatgat ttccctcccg gggcccttgg 150
 tgaccaactt gctgcgggtt ttgttcttgg ggctgagtgc cctcgcgcgc 200
 ccctcgcggg ccagctgca actgcacttg cccgccaacc ggttgcaggc 250
 ggtggagggg ggggaagtgg tgcttcacgc gtggtacacc ttgcacgggg 300
 aggtgtcttc atcccagcca tgggaggtgc cttttgtgat gtggttcttc 350
 aaacagaaag aaaaggagga tcaggtgttg tcctacatca atgggggtcac 400
 aacaagcaaa cctggagtat ccttgggtcta ctccatgccc tcccgaacc 450
 tgtccctgcg gctggagggt ctccaggaga aagactctgg ccctacagc 500
 tgctccgtga atgtgcaaga caaacaaggc aaatctaggg gccacagcat 550
 caaaacctta gaactcaatg tactgggttc tccagctcct ccctcctgcc 600
 gtctccaggg tgtgccccat gtgggggcaa acgtgaccct gagctgccag 650
 tctccaagga gtaagcccgc tgtccaatac cagtgggatc ggcagcttcc 700
 atccttccag actttctttg caccagcatt agatgtcatc cgtgggtctt 750
 taagcctcac caacctttcg tcttccatgg ctggagtcta tgtctgcaag 800
 gcccaaatg aggtgggcac tgcccaatgt aatgtgacgc tggaagtgag 850
 cacagggcct ggagctgcag tggttgctgg agctgttgtg ggtaccctgg 900
 ttggactggg gttgctggct gggctggtcc tcttgtacca ccgccggggc 950
 aaggccctgg aggagccagc caatgatatc aaggaggatg ccattgctcc 1000
 ccggaccctg ccctggccca agagctcaga cacaatctcc aagaatggga 1050
 ccctttcttc tgtcacctcc gcacgagccc tccggccacc catggccct 1100
 ccagggcctg gtgcattgac cccacgccc agtctctcca gccaggccct 1150
 gccctcacca agactgcca cgacagatgg ggcccaccct caaccaatat 1200
 ccccatccc tgggtggggtt tcttctcttg gcttgagccg catgggtgct 1250
 gtgcctgtga tgggtgcctgc ccagagtcaa gctggctctc tggatatgat 1300
 accccaccac tcattggcta aaggatttgg ggtctctcct tcctataagg 1350
 gtcacctcta gcacagaggc ctgagtcatg ggaaagagtc aactcctga 1400
 cccttagtac tctgccccca cctctcttta ctgtgggaaa accatctcag 1450

86

Pro	Ala	Val	Gln	Tyr	Gln	Trp	Asp	Arg	Gln	Leu	Pro	Ser	Phe	Gln
				185					190					195
Thr	Phe	Phe	Ala	Pro	Ala	Leu	Asp	Val	Ile	Arg	Gly	Ser	Leu	Ser
				200					205					210
Leu	Thr	Asn	Leu	Ser	Ser	Ser	Met	Ala	Gly	Val	Tyr	Val	Cys	Lys
				215					220					225
Ala	His	Asn	Glu	Val	Gly	Thr	Ala	Gln	Cys	Asn	Val	Thr	Leu	Glu
				230					235					240
Val	Ser	Thr	Gly	Pro	Gly	Ala	Ala	Val	Val	Ala	Gly	Ala	Val	Val
				245					250					255
Gly	Thr	Leu	Val	Gly	Leu	Gly	Leu	Leu	Ala	Gly	Leu	Val	Leu	Leu
				260					265					270
Tyr	His	Arg	Arg	Gly	Lys	Ala	Leu	Glu	Glu	Pro	Ala	Asn	Asp	Ile
				275					280					285
Lys	Glu	Asp	Ala	Ile	Ala	Pro	Arg	Thr	Leu	Pro	Trp	Pro	Lys	Ser
				290					295					300
Ser	Asp	Thr	Ile	Ser	Lys	Asn	Gly	Thr	Leu	Ser	Ser	Val	Thr	Ser
				305					310					315
Ala	Arg	Ala	Leu	Arg	Pro	Pro	His	Gly	Pro	Pro	Arg	Pro	Gly	Ala
				320					325					330
Leu	Thr	Pro	Thr	Pro	Ser	Leu	Ser	Ser	Gln	Ala	Leu	Pro	Ser	Pro
				335					340					345
Arg	Leu	Pro	Thr	Thr	Asp	Gly	Ala	His	Pro	Gln	Pro	Ile	Ser	Pro
				350					355					360
Ile	Pro	Gly	Gly	Val	Ser	Ser	Ser	Gly	Leu	Ser	Arg	Met	Gly	Ala
				365					370					375
Val	Pro	Val	Met	Val	Pro	Ala	Gln	Ser	Gln	Ala	Gly	Ser	Leu	Val
				380					385					390

<210> 111

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 111

agggtctcca ggagaaagac tc 22

<210> 112

<211> 24

<212> DNA

<213> Artificial Sequence

ggaacctcct gaccaacaag ggtatcgccg agggcacctt cagccatctc 950
 accaagctca aggaattttc aattgtacgt aattcgctgt cccaccctcc 1000
 tcccgatctc ccaggtacgc atctgatcag gctctatttg caggacaacc 1050
 agataaacca cattcctttg acagccttct caaatctgcg taagctggaa 1100
 cggctggata tatccaacaa ccaactgcgg atgctgactc aaggggtttt 1150
 tgataatctc tccaacctga agcagctcac tgctcggaat aacccttggg 1200
 tttgtgactg cagtattaaa tgggtcacag aatggctcaa atatatccct 1250
 tcatctctca acgtgcgggg tttcatgtgc caaggctctg aacaagtcgg 1300
 ggggatggcc gtcaggggaat taaatatgaa tcttttgtcc tgtcccacca 1350
 cgacccccgg cctgcctctc ttcacccag cccaagtac agcttctccg 1400
 accactcagc ctcccaccct ctctattcca aaccctagca gaagctacac 1450
 gcctccaact cctaccacat cgaaacttcc cacgattcct gactgggatg 1500
 gcagagaaag agtgacccca cctatttctg aacggatcca gctctctatc 1550
 cattttgtga atgatacttc cattcaagtc agctggctct ctctcttcac 1600
 cgtgatggca taaaaactca catgggtgaa aatgggccac agtttagtag 1650
 ggggcacgtc tcaggagcgc atagtcagcg gtgagaagca acacctgagc 1700
 ctgggttaact tagagccccg atccacctat eggatttgtt tagtgccact 1750
 ggatgctttt aactaccgcg cggtagaaga caccatttgt tcagaggcca 1800
 ccacccatgc ctctatctg aacaacggca gcaacacagc gtccagccat 1850
 gagcagacga cgtcccacag catgggctcc ccctttctgc tggcgggctt 1900
 gatcgggggc gcggtgatat ttgtgctggt ggtcttgctc agcgtctttt 1950
 gctggcatat gcacaaaaag gggcgctaca cctcccagaa gtggaaatac 2000
 aaccggggcc ggcggaaaga tgattattgc gaggcaggca ccaagaagga 2050
 caactccatc ctggagatga cagaaaccag ttttcagatc gtctccttaa 2100
 ataacgatca actccttaaa ggagatttca gactgcagcc catttacacc 2150
 ccaaattggg gcattaatta cacagactgc catatcccca acaacatgcg 2200
 atactgcaac agcagcgtgc cagacctgga gcactgccat acgtgacagc 2250
 cagaggccca gcgttatcaa ggcggacaat tagactcttg agaacacact 2300
 cgtgtgtgca cataaagaca cgcagattac atttgataaa tgttacacag 2350

	230		235		240
Ser Leu Ser His	Pro Pro Pro Asp Leu	Pro Gly Thr His Leu	Ile		
	245	250	255		
Arg Leu Tyr Leu	Gln Asp Asn Gln Ile	Asn His Ile Pro Leu	Thr		
	260	265	270		
Ala Phe Ser Asn	Leu Arg Lys Leu Glu	Arg Leu Asp Ile Ser	Asn		
	275	280	285		
Asn Gln Leu Arg	Met Leu Thr Gln Gly	Val Phe Asp Asn Leu	Ser		
	290	295	300		
Asn Leu Lys Gln	Leu Thr Ala Arg Asn	Asn Pro Trp Phe Cys	Asp		
	305	310	315		
Cys Ser Ile Lys	Trp Val Thr Glu Trp	Leu Lys Tyr Ile Pro	Ser		
	320	325	330		
Ser Leu Asn Val	Arg Gly Phe Met Cys	Gln Gly Pro Glu Gln	Val		
	335	340	345		
Arg Gly Met Ala	Val Arg Glu Leu Asn	Met Asn Leu Leu Ser	Cys		
	350	355	360		
Pro Thr Thr Thr	Pro Gly Leu Pro Leu	Phe Thr Pro Ala Pro	Ser		
	365	370	375		
Thr Ala Ser Pro	Thr Thr Gln Pro Pro	Thr Leu Ser Ile Pro	Asn		
	380	385	390		
Pro Ser Arg Ser	Tyr Thr Pro Pro Thr	Pro Thr Thr Ser Lys	Leu		
	395	400	405		
Pro Thr Ile Pro	Asp Trp Asp Gly Arg	Glu Arg Val Thr Pro	Pro		
	410	415	420		
Ile Ser Glu Arg	Ile Gln Leu Ser Ile	His Phe Val Asn Asp	Thr		
	425	430	435		
Ser Ile Gln Val	Ser Trp Leu Ser Leu	Phe Thr Val Met Ala	Tyr		
	440	445	450		
Lys Leu Thr Trp	Val Lys Met Gly His	Ser Leu Val Gly Gly	Ile		
	455	460	465		
Val Gln Glu Arg	Ile Val Ser Gly Glu	Lys Gln His Leu Ser	Leu		
	470	475	480		
Val Asn Leu Glu	Pro Arg Ser Thr Tyr	Arg Ile Cys Leu Val	Pro		
	485	490	495		
Leu Asp Ala Phe	Asn Tyr Arg Ala Val	Glu Asp Thr Ile Cys	Ser		
	500	505	510		
Glu Ala Thr Thr	His Ala Ser Tyr Leu	Asn Asn Gly Ser Asn	Thr		
	515	520	525		

[illegible]

```
<210> 116
<211> 21
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 116
cggtctacct gtatggcaac c 21
```

```
<210> 117
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

```
<400> 117
gcaggacaac cagataaacc ac 22
```

```
<210> 118
<211> 22
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Synthetic oligonucleotide probe

<400> 118

acgcagattt gagaaggctg tc 22

<210> 119

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 119

ttcacgggct gctcttgccc agctcttgaa gcttgaagag ctgcac 46

<210> 120

<211> 2857

<212> DNA

<213> Homo Sapien

<400> 120

tgaagagtaa tagttggaat caaaagagtc aacgcaatga actggtattt 50
 actgctgcgt tttatgttgg gaattcctct cctatggcct tgtcttggag 100
 caacagaaaa ctctcaaaca aagaaagtca agcagccagt gcgatctcat 150
 ttgagagtga agcgtggctg ggtgtggaac caattttttg taccagagga 200
 aatgaatacg actagtcatc acatcggcca gctaagatct gatttagaca 250
 atggaaacaa ttctttccag tacaagcttt tgggagctgg agctggaagt 300
 acttttatca ttgatgaaag aacaggtgac atatatgcca tacagaagct 350
 tgatagagag gagegatccc tctacatctt aagagcccag gtaatagaca 400
 tcgctactgg aagggtgtg gaacctgagt ctgagtttgt catcaaagtt 450
 tcggatatca atgacaatga accaaaattc ctagatgaac cttatgaggc 500
 cattgtacca gagatgtctc cagaaggaac attagttatc caggtgacag 550
 caagtgatgc tgacgatccc tcaagtggta ataatgctcg tctcctctac 600
 agcttacttc aaggccagcc atatttttct gttgaaccaa caacaggagt 650
 cataagaata tcttctaaaa tggatagaga actgcaagat gagtattggg 700
 taatcattca agccaaggac atgattggtc agccaggagc gttgtctgga 750
 acaacaagtg tattaattaa actttcagat gttaatgaca ataagcctat 800
 atttaaagaa agtttatacc gcttgactgt ctctgaatct gcaccactg 850
 ggacttctat aggaacaatc atggcatatg ataatgacat aggagagaat 900
 gcagaaatgg attacagcat tgaagaggat gattcgcaaa catttgacat 950
 tattactaat catgaaactc aagaaggaat agttatatta aaaaagaaag 1000

tggatTTTTga gcaccagaac cactacggta ttagagcaaa agttaaaaaac 1050
 catcatgttc ctgagcagct catgaagtac cacactgagg cttccaccac 1100
 tttcattaag atccaggtgg aagatgttga tgagcctcct cttttcctcc 1150
 ttccatatta tgtatttgaa gtttttgaag aaaccacaca gggatcattt 1200
 gtaggcgtgg tgtctgccac agaccagac aataggaaat ctcctatcag 1250
 gtattctatt actaggagca aagtgttcaa tatcaatgat aatggtacaa 1300
 tcactacaag taactcactg gatcgtgaaa tcagtgttg gtacaaccta 1350
 agtattacag ccacagaaaa atacaatata gaacagatct cttcgatccc 1400
 actgtatgtg caagttctta acatcaatga tcatgctcct gagttctctc 1450
 aatactatga gacttatgtt tgtgaaaatg caggctctgg tcaggttaatt 1500
 cagactatca gtgcagtggg tagagatgaa tccatagaag agcaccattt 1550
 ttactttaat ctatctgtag aagacactaa caattcaagt tttacaatca 1600
 tagataatca agataacaca gctgtcattt tgactaatag aactggtttt 1650
 aaccttcaag aagaacctgt cttctacatc tccatcttaa ttgccgacaa 1700
 tggaatcccg tcacttaca gtacaaacac ccttaccatc catgtctgtg 1750
 actgtggtga cagtgggagc acacagacct gccagtacca ggagcttgtg 1800
 ctttccatgg gattcaagac agaagttatc attgctattc tcatttgcac 1850
 tatgatcata tttgggttta tttttttgac tttgggttta aaacaacgga 1900
 gaaaacagat tctatttcct gagaaaagtg aagatttcag agagaatata 1950
 ttccaatatg atgatgaagg ggggtggagaa gaagatacag aggcctttga 2000
 tatagcagag ctgaggagta gtaccataat gcgggaacgc aagactcgga 2050
 aaaccacaag cgctgagatc aggagcctat acaggcagtc tttgcaagtt 2100
 ggccccgaca gtgccatatt caggaaattc attctggaaa agctcgaaga 2150
 agctaatact gatccgtgtg cccctccttt tgattccctc cagacctacg 2200
 cttttgaggg aacaggggtca ttagctggat ccctgagctc cttagaatca 2250
 gcagtctctg atcaggatga aagctatgat taccttaatg agttgggacc 2300
 tcgctttaa agattagcat gcatgtttgg ttctgcagtg cagtcaaata 2350
 attagggctt tttaccatca aaatttttaa aagtgtctaat gtgtattcga 2400
 acccaatggt agtcttaaag agttttgtgc cctggctcta tggcggggaa 2450

agccctagtc tatggagttt tctgatttcc ctggagtaaa tactccatgg 2500
 ttattttaag ctacctacat gctgtcattg aacagagatg tggggagaaa 2550
 tgtaaacaat cagctcacag gcatcaatac aaccagattt gaagtaaaat 2600
 aatgtaggaa gatattaaaa gtagatgaga ggacacaaga tgtagtcgat 2650
 ccttatgcga ttatatcatt atttacttag gaaagagtaa aaataccaaa 2700
 cgagaaaatt taaaggagca aaaatttgca agtcaaatag aaatgtacaa 2750
 atcgagataa catttacatt tctatcatat tgacatgaaa attgaaaatg 2800
 tatagtcaga gaaattttca tgaattattc catgaagtat tgtttccttt 2850
 atttaaa 2857

<210> 121
 <211> 772
 <212> PRT
 <213> Homo Sapien

<400> 121
 Met Asn Cys Tyr Leu Leu Leu Arg Phe Met Leu Gly Ile Pro Leu
 1 5 10 15
 Leu Trp Pro Cys Leu Gly Ala Thr Glu Asn Ser Gln Thr Lys Lys
 20 25 30
 Val Lys Gln Pro Val Arg Ser His Leu Arg Val Lys Arg Gly Trp
 35 40 45
 Val Trp Asn Gln Phe Phe Val Pro Glu Glu Met Asn Thr Thr Ser
 50 55 60
 His His Ile Gly Gln Leu Arg Ser Asp Leu Asp Asn Gly Asn Asn
 65 70 75
 Ser Phe Gln Tyr Lys Leu Leu Gly Ala Gly Ala Gly Ser Thr Phe
 80 85 90
 Ile Ile Asp Glu Arg Thr Gly Asp Ile Tyr Ala Ile Gln Lys Leu
 95 100 105
 Asp Arg Glu Glu Arg Ser Leu Tyr Ile Leu Arg Ala Gln Val Ile
 110 115 120
 Asp Ile Ala Thr Gly Arg Ala Val Glu Pro Glu Ser Glu Phe Val
 125 130 135
 Ile Lys Val Ser Asp Ile Asn Asp Asn Glu Pro Lys Phe Leu Asp
 140 145 150
 Glu Pro Tyr Glu Ala Ile Val Pro Glu Met Ser Pro Glu Gly Thr
 155 160 165
 Leu Val Ile Gln Val Thr Ala Ser Asp Ala Asp Asp Pro Ser Ser

	170	175	180
Gly Asn Asn Ala Arg Leu Leu Tyr Ser	Leu Leu Gln Gly Gln Pro		
185	190	195	
Tyr Phe Ser Val Glu Pro Thr Thr Gly	Val Ile Arg Ile Ser Ser		
200	205	210	
Lys Met Asp Arg Glu Leu Gln Asp Glu	Tyr Trp Val Ile Ile Gln		
215	220	225	
Ala Lys Asp Met Ile Gly Gln Pro Gly	Ala Leu Ser Gly Thr Thr		
230	235	240	
Ser Val Leu Ile Lys Leu Ser Asp Val	Asn Asp Asn Lys Pro Ile		
245	250	255	
Phe Lys Glu Ser Leu Tyr Arg Leu Thr	Val Ser Glu Ser Ala Pro		
260	265	270	
Thr Gly Thr Ser Ile Gly Thr Ile Met	Ala Tyr Asp Asn Asp Ile		
275	280	285	
Gly Glu Asn Ala Glu Met Asp Tyr Ser	Ile Glu Glu Asp Asp Ser		
290	295	300	
Gln Thr Phe Asp Ile Ile Thr Asn His	Glu Thr Gln Glu Gly Ile		
305	310	315	
Val Ile Leu Lys Lys Lys Val Asp Phe	Glu His Gln Asn His Tyr		
320	325	330	
Gly Ile Arg Ala Lys Val Lys Asn His	His Val Pro Glu Gln Leu		
335	340	345	
Met Lys Tyr His Thr Glu Ala Ser Thr	Thr Phe Ile Lys Ile Gln		
350	355	360	
Val Glu Asp Val Asp Glu Pro Pro Leu	Phe Leu Leu Pro Tyr Tyr		
365	370	375	
Val Phe Glu Val Phe Glu Glu Thr Pro	Gln Gly Ser Phe Val Gly		
380	385	390	
Val Val Ser Ala Thr Asp Pro Asp Asn	Arg Lys Ser Pro Ile Arg		
395	400	405	
Tyr Ser Ile Thr Arg Ser Lys Val Phe	Asn Ile Asn Asp Asn Gly		
410	415	420	
Thr Ile Thr Thr Ser Asn Ser Leu Asp	Arg Glu Ile Ser Ala Trp		
425	430	435	
Tyr Asn Leu Ser Ile Thr Ala Thr Glu	Lys Tyr Asn Ile Glu Gln		
440	445	450	
Ile Ser Ser Ile Pro Leu Tyr Val Gln	Val Leu Asn Ile Asn Asp		
455	460	465	

His	Ala	Pro	Glu	Phe 470	Ser	Gln	Tyr	Tyr	Glu 475	Thr	Tyr	Val	Cys	Glu 480
Asn	Ala	Gly	Ser	Gly 485	Gln	Val	Ile	Gln	Thr 490	Ile	Ser	Ala	Val	Asp 495
Arg	Asp	Glu	Ser	Ile 500	Glu	Glu	His	His	Phe 505	Tyr	Phe	Asn	Leu	Ser 510
Val	Glu	Asp	Thr	Asn 515	Asn	Ser	Ser	Phe	Thr 520	Ile	Ile	Asp	Asn	Gln 525
Asp	Asn	Thr	Ala	Val 530	Ile	Leu	Thr	Asn	Arg 535	Thr	Gly	Phe	Asn	Leu 540
Gln	Glu	Glu	Pro	Val 545	Phe	Tyr	Ile	Ser	Ile 550	Leu	Ile	Ala	Asp	Asn 555
Gly	Ile	Pro	Ser	Leu 560	Thr	Ser	Thr	Asn	Thr 565	Leu	Thr	Ile	His	Val 570
Cys	Asp	Cys	Gly	Asp 575	Ser	Gly	Ser	Thr	Gln 580	Thr	Cys	Gln	Tyr	Gln 585
Glu	Leu	Val	Leu	Ser 590	Met	Gly	Phe	Lys	Thr 595	Glu	Val	Ile	Ile	Ala 600
Ile	Leu	Ile	Cys	Ile 605	Met	Ile	Ile	Phe	Gly 610	Phe	Ile	Phe	Leu	Thr 615
Leu	Gly	Leu	Lys	Gln 620	Arg	Arg	Lys	Gln	Ile 625	Leu	Phe	Pro	Glu	Lys 630
Ser	Glu	Asp	Phe	Arg 635	Glu	Asn	Ile	Phe	Gln 640	Tyr	Asp	Asp	Glu	Gly 645
Gly	Gly	Glu	Glu	Asp 650	Thr	Glu	Ala	Phe	Asp 655	Ile	Ala	Glu	Leu	Arg 660
Ser	Ser	Thr	Ile	Met 665	Arg	Glu	Arg	Lys	Thr 670	Arg	Lys	Thr	Thr	Ser 675
Ala	Glu	Ile	Arg	Ser 680	Leu	Tyr	Arg	Gln	Ser 685	Leu	Gln	Val	Gly	Pro 690
Asp	Ser	Ala	Ile	Phe 695	Arg	Lys	Phe	Ile	Leu 700	Glu	Lys	Leu	Glu	Glu 705
Ala	Asn	Thr	Asp	Pro 710	Cys	Ala	Pro	Pro	Phe 715	Asp	Ser	Leu	Gln	Thr 720
Tyr	Ala	Phe	Glu	Gly 725	Thr	Gly	Ser	Leu	Ala 730	Gly	Ser	Leu	Ser	Ser 735
Leu	Glu	Ser	Ala	Val 740	Ser	Asp	Gln	Asp	Glu 745	Ser	Tyr	Asp	Tyr	Leu 750
Asn	Glu	Leu	Gly	Pro	Arg	Phe	Lys	Arg	Leu	Ala	Cys	Met	Phe	Gly

<210> 126
<211> 179
<212> PRT
<213> Homo Sapien

<400> 126
Met Ala Ala Leu Gln Lys Ser Val Ser Ser Phe Leu Met Gly Thr
1 5 10 15
Leu Ala Thr Ser Cys Leu Leu Leu Leu Ala Leu Leu Val Gln Gly
20 25 30
Gly Ala Ala Ala Pro Ile Ser Ser His Cys Arg Leu Asp Lys Ser
35 40 45
Asn Phe Gln Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala
50 55 60
Lys Glu Ala Ser Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile
65 70 75
Gly Glu Lys Leu Phe His Gly Val Ser Met Ser Glu Arg Cys Tyr

aaacttggac tttctcaagg cggtagacac gaaccgagca agcgtcggcc 850
 aagactctcc tgagcccaga agcttcacag acctgctgct ggatgatggg 900
 caggacaata acactcagat cgaggaggat acagaccaca attactatat 950
 atctcgaata tatgggtccat ctgattctgc cagccgggat ttatgggtga 1000
 acatagacca aatggaaaaa gataaagtga agattcatgg aatattgtcc 1050
 aatactcadc ggcaagctgc aagagtgaat ctgtccttcg attttccatt 1100
 ttatggccac ttcctacgtg aaatcactgt ggcaaccggg ggtttcatat 1150
 aacttgagga agtcgtacat cgaatgctaa cagccacaca gtacatagca 1200
 cctttaatgg caaatctcga tcccagtgta tccagaaatt caactgtcag 1250
 atattttgat aatggcacag cacttgtggt ccagtgggac catgtacatc 1300
 tccaggataa ttataacctg ggaagcttca cattccaggc aaccctgctc 1350
 atggatggac gaatcatctt tggatacaaa gaaattcctg tcttggtcac 1400
 acagataagt tcaaccaatc atccagtga agtcggactg tccgatgcat 1450
 ttgtcgttgt ccacaggatc caacaaattc ccaatgttcg aagaagaaca 1500
 atttatgaat accaccgagt agagctacaa atgtcaaaaa ttaccaacat 1550
 ttgggtctgt gagatgacct cattaccac atgcctccag tttaacagat 1600
 gtggccccctg tgtatcttct cagattggct tcaactgcag ttggtgtagt 1650
 aaacttcaaa gatgttccag tggatttgat cgtcatcggc aggactgggt 1700
 ggacagtgga tgccctgaag agtcaaaaga gaagatgtgt gagaatacag 1750
 aaccagtgga aacttcttct cgaaccacca caaccgtagg agcgacaacc 1800
 acccagttca gggctctaac taccaccaga agagcagtga cttctcagtt 1850
 tcccaccagc ctccctacag aagatgatac caagatagca ctacatctaa 1900
 aagataatgg agcttctaca gatgacagtg cagctgagaa gaaaggggga 1950
 accctccagc ctggcctcat cattggaatc ctcatcctgg tcttcattgt 2000
 agccacagcc attcttgtga cagtctatat gtatcaccac ccaacatcag 2050
 cagccagcat cttctttatt gagagacgcc caagcagatg gcctgcgatg 2100
 aagtttagaa gaggtctctg acatcctgcc tatgctgaag ttgaaccagt 2150
 tggagagaaa gaaggcttta ttgtatcaga gcagtgctaa aatttctagg 2200
 acagaacaac accagtactg gtttacaggt gttaagacta aaattttgcc 2250

[illegible]

105

caataaaaatc	tttctatata	gccatttcag	tgcaaacaaag	taaaatcaaa	2400
aaagaccatc	ctttatTTTT	ccttacatga	tatatgtaag	atgcgatcaa	2450
ataaagacaa	aacaccagtg	atgagaatat	cttaagataa	gtaattatca	2500
aattattgtg	aatgttaaat	tatttctact	ataaagaagc	aaaactacat	2550
ttttgaagga	aaatgctgtt	actctaacat	taattttacag	gaatagtttg	2600
atggtttcac	tctttactaa	agaaaggcca	tcaccttgaa	agccatttta	2650
caggtttgat	gaagttacca	atttcagtac	acctaaatTT	ctacaaatag	2700
tcccctttta	caagttgtaa	caacaaagac	cctataataa	aattagatac	2750
aagaaaTTTT	gcagtgggta	tacatatttg	agatatctag	tatgttgccc	2800
tagcagggat	ggcttaaaaa	ctgtgatttt	ttttcttcaa	gtaaaactta	2850
gtcccaaaagt	acatcataaa	tcaattttta	ttagaaaaat	gaatcttaaa	2900
tgaggggaca	taagtatact	ctttccacaa	aatggcaata	ataaggcata	2950
aagctagtaa	atctactaac	tgtaataaat	gtatgacatt	atTTtgattg	3000
atacattaaa	aaagagTTTT	tagaacaaat	atggcattta	actttattat	3050
ttatttgctt	ttaagaaata	ttctttgtgg	aattgttgaa	taaactataa	3100
aatattatTT	tgtattgcag	ctttaaagtg	gcacactcca	taataatcta	3150
cttactagaa	atagtgggtc	taccacaaaa	aatgttaacc	atcagtacca	3200
ttgtttggga	gaaagaaaca	gatcaagaat	gcatattatt	cagtgaccgc	3250
tttcctagag	ttaaaatacc	tcctctttgt	aagggtttgta	ggtaaattga	3300
gggtataaact	atggatgaac	caaataatta	gttcaaagtg	ttgtcatgat	3350
tccaaaTTtg	tggagtctgg	tgtttttacc	atagaatgtg	acagaagtac	3400
agtcatagct	cagtagctat	atgtatttgc	ctttatgtta	gaagagactt	3450
tcttgagtga	cattttttaa	tagaggaggt	attcactatg	tttttctgta	3500
tcacagcagc	attcctagtc	cttaggccct	cggacagagt	gaaatcatga	3550
gtattttatga	gttcaatatt	gtcaaaataag	gctacagtat	ttgctTTTT	3600
gtgtgaatgt	attgcatata	atgttcaagt	agatgatttt	acatttatgg	3650
acatataaaa	tgtctgatta	ccccatttta	tcagtcctga	ctgtacaaga	3700
ttgttgcaat	ttcagaatag	cagttttata	aattgattta	tcttttaatc	3750
tataacaatt	tgtgttagct	gttcattttca	ggantatatt	ttctacaagt	3800

tccacttggtg ggactccttt tgttgccctt attttttttt aaagaaggaa 3850
gaaagaaaaa taagtagcag tttaaaaatg agaatggaga gaaaagaaaa 3900
agaatgaaaa ggaaaggcag taaagagga aaaaaaagga aggatggaag 3950
gaatgaagga aggaagggag gaaggggaga aggtaggaag aaagaaagga 4000
tgagagggaa ggaagaatca gagtattagg gtagttaact tacacatttg 4050
cattcttagt ttaactgcaa gtggtgtaac tatgtttttc aatgatcgca 4100
tttgaaacat aagtcctatt ataccattaa gttcctatta tgcagcaatt 4150
atataataaa aagtactgcc caagttatag taatgtgggt gtttttgaga 4200
cactaaaaga tttgagaggg agaatttcaa acttaaagcc acttttgagg 4250
ggtttataac ttaactgaaa aattaatgct tcatcataac atttaagcta 4300
tatctagaaa gtagactgga gaactgagaa aattaccag gtaattcagg 4350
gaaaaaaaaa aatatatata tatataaata cccctacatt tgaagtcaga 4400
aaactctgaa aaactgaatt atcaaagtca atcatctata atgatcaaat 4450
ttactgaaca attgttaatt tatccattgt gcttagcttt gtgacacagc 4500
caaaggttac ctatttaatc ttttcaataa aaattgtttt ttgaaatcca 4550
gaaatgattt aaaaagaggt caggttttta actatttatt gaagtatgtg 4600
gatgtacagt atttcaatag atatgaatat gaataaatgg tatgccttaa 4650
gattctttga atatgtattt actttaaaga ctggaaaaag ctcttctgt 4700
cttttagtaa aacatccata tttcataacc tgatgtaaaa tatgttgtag 4750
tgtttccaat aggtgaatat aaactcagtt tatcaattaa aaaaaaaaaa 4800
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 4834

<210> 130

<211> 354

<212> PRT

<213> Homo Sapien

<400> 130

Met	Asp	Met	Met	Leu	Leu	Val	Gln	Gly	Ala	Cys	Cys	Ser	Asn	Gln
1				5				10					15	
Trp	Leu	Ala	Ala	Val	Leu	Leu	Ser	Leu	Cys	Cys	Leu	Leu	Pro	Ser
				20				25					30	
Cys	Leu	Pro	Ala	Gly	Gln	Ser	Val	Asp	Phe	Pro	Trp	Ala	Ala	Val
				35				40					45	
Asp	Asn	Met	Met	Val	Arg	Lys	Gly	Asp	Thr	Ala	Val	Leu	Arg	Cys

108

$\begin{array}{ccccccc} \frac{\partial^2 u}{\partial x^2} & \frac{\partial^2 u}{\partial x \partial y} & \frac{\partial^2 u}{\partial y^2} & \frac{\partial^2 u}{\partial x^2} & \frac{\partial^2 u}{\partial x \partial y} & \frac{\partial^2 u}{\partial y^2} & \frac{\partial^2 u}{\partial x^2} \\ \frac{\partial^2 v}{\partial x^2} & \frac{\partial^2 v}{\partial x \partial y} & \frac{\partial^2 v}{\partial y^2} & \frac{\partial^2 w}{\partial x^2} & \frac{\partial^2 w}{\partial x \partial y} & \frac{\partial^2 w}{\partial y^2} & \frac{\partial^2 w}{\partial x^2} \\ \frac{\partial^2 \phi}{\partial x^2} & \frac{\partial^2 \phi}{\partial x \partial y} & \frac{\partial^2 \phi}{\partial y^2} & \frac{\partial^2 \psi}{\partial x^2} & \frac{\partial^2 \psi}{\partial x \partial y} & \frac{\partial^2 \psi}{\partial y^2} & \frac{\partial^2 \psi}{\partial x^2} \end{array}$

```
<210> 131
<211> 823
<212> DNA
<213> Homo Sapien
```

```
<400> 131
atagtagaag aatgtctctg aaattactgg atgagtttca gtcatacttt 50
cacatgggca caatttcaca ttcaagctcc ttatcctagg ctaattttat 100
attatgttaa atcacttggt tttgtttctca cggcttctctg cctgctatag 150
gcataattac gaggaagcag aacttctcca gaagcaagcg cacatgcgtt 200
ccaaaataag agcaaattcg ctctaaacac aggaaaagac ctgaagcttt 250
aattaagggg ttacatccaa cccagagcg cttttgtggg cactgattgc 300
tccagcttct gcgtcactgc gcgaggggaag agggaagagg atccaggcgt 350
tagacatgta tagacacaaa aacagctgga gattgggctt aaaataccca 400
ccaagctcca aagaagagac ccaagtcccc aaaacattga tttcagggct 450
gccaggaagg aagagcagca gcagggtggg agagaagctc cagtcagccc 500
acaagatgcc attgtcccc ggccctcctgc tgctgctgct ctccggggcc 550
acggccaccg ctgccctgcc cctggagggg ggccccaccg gccgagacag 600
cgagcatatg caggaagcgg caggaataag gaaaagcagc ctccctgactt 650
tcctcgcttg gtggtttgag tggacctccc aggccagtgc cgggcccctc 700
ataggagagg aagctcgga ggtggccagg cggcaggaag gcgcaccccc 750
ccagcaatcc gcgcgcggg acagaatgcc ctgcaggaac ttcttctgga 800
agaccttctc ctccctgcaa tag 823
```

```
<210> 132
<211> 155
<212> PRT
<213> Homo Sapien
```

```

<400> 132
Met  Tyr  Arg  His  Lys  Asn  Ser  Trp  Arg  Leu  Gly  Leu  Lys  Tyr  Pro
  1          5          10          15

Pro  Ser  Ser  Lys  Glu  Glu  Thr  Gln  Val  Pro  Lys  Thr  Leu  Ile  Ser
          20          25          30

Gly  Leu  Pro  Gly  Arg  Lys  Ser  Ser  Ser  Arg  Val  Gly  Glu  Lys  Leu
          35          40          45

```

Gln Ser Ala His Lys Met Pro Leu Ser Pro Gly Leu Leu Leu Leu
 50 55 60
 Leu Leu Ser Gly Ala Thr Ala Thr Ala Ala Leu Pro Leu Glu Gly
 65 70 75
 Gly Pro Thr Gly Arg Asp Ser Glu His Met Gln Glu Ala Ala Gly
 80 85 90
 Ile Arg Lys Ser Ser Leu Leu Thr Phe Leu Ala Trp Trp Phe Glu
 95 100 105
 Trp Thr Ser Gln Ala Ser Ala Gly Pro Leu Ile Gly Glu Glu Ala
 110 115 120
 Arg Glu Val Ala Arg Arg Gln Glu Gly Ala Pro Pro Gln Gln Ser
 125 130 135
 Ala Arg Arg Asp Arg Met Pro Cys Arg Asn Phe Phe Trp Lys Thr
 140 145 150
 Phe Ser Ser Cys Lys
 155
 <210> 133
 <211> 24
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 133
 tcagggctgc caggaaggaa gagc 24
 <210> 134
 <211> 28
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 134
 gcaggaggag aaggtcttcc agaagaag 28
 <210> 135
 <211> 45
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic oligonucleotide probe
 <400> 135
 agaagttcca gtcagcccac aagatgcat tgtcccccg cctcc 45
 <210> 136

<211> 1875
 <212> DNA
 <213> Homo Sapien

<400> 136
 gtcgtgtgct tggaggaagc cgcggaaccc ccagcgtccg tccatggcgt 50
 ggagccttgg gagctggctg ggtggctgcc tgctggtgtc agcattggga 100
 atggtaccac ctcccgaaaa tgtcagaatg aattctgtta atttcaagaa 150
 cattctacag tgggagtcac ctgcttttgc caaagggaac ctgactttca 200
 cagctcagta cctaagttat aggatattcc aagataaatg catgaatact 250
 accttgacgg aatgtgattt ctcaagtctt tccaagtatg gtgaccacac 300
 cttgagagtc agggctgaat ttgcagatga gcattcagac tgggtaaaca 350
 tcaccttctg tctgtggat gacaccatta ttggaccccc tggaatgcaa 400
 gtagaagtac ttgctgattc tttacatatg cgtttcttag cccctaaaat 450
 tgagaatgaa tacgaaactt ggactatgaa gaatgtgtat aactcatgga 500
 cttataatgt gcaatactgg aaaaacggta ctgatgaaaa gtttcaaatt 550
 actccccagt atgactttga ggtcctcaga aacctggagc catggacaac 600
 ttattgtggt caagtctgag ggtttcttcc tgatcggaac aaagctgggg 650
 aatggagtga gcctgtctgt gagcaaaca cccatgacga aacggtcccc 700
 tcttgatgg tggcgtcat cctcatggcc tcggtcttca tggctctgct 750
 ggcactctc ggctgcttct ctttgcgtgt gtgcgtttac aagaagacaa 800
 agtacgcctt ctcccttagg aattctcttc cacagcacct gaaagagttt 850
 ttgggccatc ctcatcataa cacacttctg tttttctcct ttccattgtc 900
 ggatgagaat gatgtttttg acaagctaag tgtcattgca gaagactctg 950
 agagcggcaa gcagaatcct ggtgacagct gcagcctcgg gaccccgct 1000
 gggcaggggc cccaaagcta ggctctgaga aggaaacaca ctgggctggg 1050
 cacagtgacg tactccatct cacatctgcc tcagtgaggg atcagggcag 1100
 caaacaaggg ccaagaccat ctgagccagc cccacatcta gaactccaga 1150
 cctggactta gccaccagag agctacattt taaaggctgt cttggcaaaa 1200
 atactccatt tgggaactca ctgccttata aaggctttca tgatgttttc 1250
 agaagttggc cactgagagt gtaattttca gccttttata tcactaaaat 1300
 aagatcatgt ttttaattgt agaaacaggg ccgagcacag tggctcacgc 1350

gagcacttca tgctggagga gactgactgg tacctgctga acctcttccg 450
 cctctggtgg cactatggca tcagcttccct gaggctgcag atgtgggtgg 500
 aggaggtcat ggagaagttc atgaggatct ataagtacca ggcccacggc 550
 tatgccttct cgggtgtgga ggagctgctc tactcactgg gggagtccac 600
 ctttggttaac atgaccagc actctgtggc tgagtccctg ctgcaggtgg 650
 gcgtcacgca gcgctttatt gatgatgtcg tttctgctgt cctgcggggc 700
 agctatggcc agtcagcagc gatgcccgcc tttgcaggag ccatgtcact 750
 agccgggggc caaggcagcc tgtggtctgt ggaaggaggc aataagctgg 800
 tttgttccgg tttgctgaag ctcaccaagg ccaatgtgat ccatgccaca 850
 gtgacctctg tgacctgca cagcacagag gggaaagccc tgtaccaggt 900
 ggcgtatgag aatgaggtag gcaacagctc tgacttctat gacatcgtgg 950
 tcatcgccac cccctgcaac ctggacaaca gcagcagcaa cttaaccttt 1000
 gcaggcttcc acccgcccat tgatgacgtg cagggtctct tccagccac 1050
 cgctgtctcc ttggtccacg gctacctcaa ctgctctac ttcggtttcc 1100
 cagaccctaa gcttttcccc tttgccaaca tccttaccac agatttcccc 1150
 agcttcttct gcactctgga caacatctgc cctgtcaaca tctctgccag 1200
 ctccggcgga aagcagcccc aggaggcagc tgtttggcga gtccagtccc 1250
 ccaagccctt ctttcggacc cagctaaaga ccctgttccg ttcctattac 1300
 tcagtgcaga cagctgagtg gcaggcccat cccctctatg gctcccgccc 1350
 cacgtccccg aggtttgcac tccatgacca gctcttctac ctcaatgccc 1400
 tggagtgggc ggccagctcc gtggaggtga tggccgtggc tgccaagaat 1450
 gtggccttgc tggcttaciaa ccgctggtac caggacctag acaagattga 1500
 tcaaaaagat ttgatgcaca aggtcaagac tgaactgtga gggctctagg 1550
 gagagcctgg gaactttcat cccccactga agatggatca tcccacagca 1600
 gcccaggact gaataagcca tgctcgccca ccaggcttct ttctgacccc 1650
 tcatgtatca agcatctcca ggtgacctac tgtctgcta tattaagggt 1700
 ccacacggcg gctgctgctt ttttttaagg gggaaagtaa gaaaagagaa 1750
 ggaaatccaa gccagtatat ttgttttatt tatttttttt aagaagaaaa 1800
 aagttcatct tcacaagggtg cttcagactt ggtttcttag ctagaaacca 1850

[illegible]

```
<210> 139
<211> 494
<212> PRT
<213> Homo Sapien
```

<400>	139														
Met	Ala	Arg	Ala	Ala	Pro	Leu	Leu	Ala	Ala	Leu	Thr	Ala	Leu	Leu	
1				5					10					15	
	Ala	Ala	Ala	Ala	Gly	Gly	Asp	Ala	Pro	Pro	Gly	Lys	Ile	Ala	
				20					25					30	
Val	Val	Gly	Ala	Gly	Ile	Gly	Gly	Ser	Ala	Val	Ala	His	Phe	Leu	
				35					40					45	
Gln	Gln	His	Phe	Gly	Pro	Arg	Val	Gln	Ile	Asp	Val	Tyr	Glu	Lys	
				50					55					60	
Gly	Thr	Val	Gly	Gly	Arg	Leu	Ala	Thr	Ile	Ser	Val	Asn	Lys	Gln	
				65					70					75	
His	Tyr	Glu	Ser	Gly	Ala	Ala	Ser	Phe	His	Ser	Leu	Ser	Leu	His	
				80					85					90	
Met	Gln	Asp	Phe	Val	Lys	Leu	Leu	Gly	Leu	Arg	His	Arg	Arg	Glu	
				95					100					105	
Val	Val	Gly	Arg	Ser	Ala	Ile	Phe	Gly	Gly	Glu	His	Phe	Met	Leu	

Glu Glu Thr Asp Trp Tyr Leu Leu Asn	Leu Phe Arg Leu Trp Trp	
125	130	135
His Tyr Gly Ile Ser Phe Leu Arg Leu	Gln Met Trp Val Glu Glu	
140	145	150
Val Met Glu Lys Phe Met Arg Ile Tyr	Lys Tyr Gln Ala His Gly	
155	160	165
Tyr Ala Phe Ser Gly Val Glu Glu Leu	Leu Tyr Ser Leu Gly Glu	
170	175	180
Ser Thr Phe Val Asn Met Thr Gln His	Ser Val Ala Glu Ser Leu	
185	190	195
Leu Gln Val Gly Val Thr Gln Arg Phe	Ile Asp Asp Val Val Ser	
200	205	210
Ala Val Leu Arg Ala Ser Tyr Gly Gln	Ser Ala Ala Met Pro Ala	
215	220	225
Phe Ala Gly Ala Met Ser Leu Ala Gly	Ala Gln Gly Ser Leu Trp	
230	235	240
Ser Val Glu Gly Gly Asn Lys Leu Val	Cys Ser Gly Leu Leu Lys	
245	250	255
Leu Thr Lys Ala Asn Val Ile His Ala	Thr Val Thr Ser Val Thr	
260	265	270
Leu His Ser Thr Glu Gly Lys Ala Leu	Tyr Gln Val Ala Tyr Glu	
275	280	285
Asn Glu Val Gly Asn Ser Ser Asp Phe	Tyr Asp Ile Val Val Ile	
290	295	300
Ala Thr Pro Leu His Leu Asp Asn Ser	Ser Ser Asn Leu Thr Phe	
305	310	315
Ala Gly Phe His Pro Pro Ile Asp Asp	Val Gln Gly Ser Phe Gln	
320	325	330
Pro Thr Val Val Ser Leu Val His Gly	Tyr Leu Asn Ser Ser Tyr	
335	340	345
Phe Gly Phe Pro Asp Pro Lys Leu Phe	Pro Phe Ala Asn Ile Leu	
350	355	360
Thr Thr Asp Phe Pro Ser Phe Phe Cys	Thr Leu Asp Asn Ile Cys	
365	370	375
Pro Val Asn Ile Ser Ala Ser Phe Arg	Arg Lys Gln Pro Gln Glu	
380	385	390
Ala Ala Val Trp Arg Val Gln Ser Pro	Lys Pro Leu Phe Arg Thr	
395	400	405

117

```

<400> 143
ggccttgtagc acaaccgt 18

<210> 144
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 144
cagactgagg gagatccgag a 21

<210> 145
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 145
gcagattttg aggacagcca cctcca 26

<210> 146
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 146
catcaagcgc ctctacca 18

<210> 147
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 147
cacaaactcg aactgcttct g 21

<210> 148
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 148
cagctgccct tccccaacca 20

```

```

<210> 149
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 149
ggcagagact tccagtcact ga 22

<210> 150
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 150
gccaaaggggtg gtgttagata gg 22

<210> 151
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 151
caggccccct tgatctgtac ccca 24

```